



MANAGEMENT POTENTIAL P³

Possibilities | Pioneering | Progress

SAIMS 2023

CONFERENCE PROCEEDINGS

34th Annual Conference || 10 to 13 September 2023

Leriba, 245 End Street, Clubview, Centurion, South Africa

Proudly presented by Department Management Sciences Akademia

SAIMS

(The Southern Africa Institute of Management Scientists)

34th Annual Conference

This work represents the proceedings of the 34th SAIMS conference, presented at Akademia, Leriba, Centurion from 10 to 13 September 2023

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TABLE OF CONTENTS

Message from SAIMS Board Chairperson	8
Message from the Chairperson of the 34 th Annual SAIMS Conference	9
Organising Committee	11
Review Process	13
Contribution of institutions.....	14
List of reviewers	15
Best paper award.....	18
Speakers and Keynote Speakers	19
Conference Sponsors	20
Conference Focus Areas	21
Conference Papers	22
Accounting, Economics, Banking and Insurance.....	22
• Exploring the impact of selected interventions on the performance of first year accounting students	22
<i>Lorelle D. De Villiers and Shelley M. Farrington</i>	
• Dealing with Learned Helplessness in Teaching and Learning in Accounting: A Systematic Literature Review Approach and a Call for Action	40
<i>Lilian Nwosu¹, Roseline Azubuike², Zanele Sebopha³, James Ako Oben⁴, and Tlotlo Segotso</i>	
• An assessment of tax compliance among Small, Medium and Micro Enterprises in South Africa	57
<i>Lesego Audrey Lesejane, James Ako Oben.....</i>	
• An exploratory study on the challenges faced by South African Municipalities in implementing the Municipal Standard Chart of Accounts: A Case of the City of Tshwane	69
<i>Lekhera, Thakane; Schutte, Danie P; Dlamini, Banele</i>	
• Information technology skills in the workplace: A synopsis of the challenges experienced by first-year trainee accountants.....	83
<i>Lilian Nwosu¹, Lizelle Labuschagne², Annelien Adriana van Rooyen</i>	
Consumer Behaviour.....	93
• South African consumers' perceptions of wearable activity trackers: a post-pandemic perspective.....	93
<i>Chantel Muller and Re-an Müller</i>	

- Factors that influence student choice to study at a Private Higher Education Institution in South Africa 107
Willy Hannes Engelbrecht; Conrad van Greunen and Priya Ramgovind
- Exploring the relationships among brand experience, customer-perceived value and brand strength in the South African e-commerce industry 119
M Engelbrecht; M Theron-Wepener and Christo Boshoff
- Reviewing the perceptions of and addressing the barriers to physical eSports participation in South Africa..... 130
Chantel Muller.....

Digital Marketing and Social Media 142

- Examining determinants of Chat banking continuous use intentions in South Africa: Technology Acceptance Model (TAM) 142
Thabang Mofokeng and Ridwana Ibrahim
- A risk and trust assessment of the intention to use online banking: A Namibian perspective..... 155
Mia Bothma; Alfred Henrico and Leandrie Mostert 155

Finance, Risk and Investments 165

- Navigating Industry 4.0: A conceptual review of cyber risk, security and resilience in South Africa 165
Laura Frances Putter; Nadia Mans-Kemp and Ruth Johnson.....
- Time orientation and tone of director pay disclosure pre- and post-2020..... 176
Nadia Mans-Kemp and Stacey Sauls
- The opportunity presented by price momentum in frontier African equity markets189
Johannes Petrus Steyn.....
- Measuring technology and information governance disclosure: an emerging market perspective..... 205
Nadia Mans-Kemp and Leon Rossouw.....
- The influence of financial socialisation technique, financial literacy, and subjective financial knowledge on responsible financial behaviour of young financial professionals..... 220
Xolile Antoni.....
- Financial planning clients and their preparedness for risk events: Evidence from Cape Town 235
Alex Fitchet¹; Gizelle Willows¹ and Liezel Alsemgeest.....

General and Strategic Management 248

- Developing a hypothetical model of organisational citizenship behaviour (OCB) in South African rail and road transport state-owned enterprises 248
Candice Calvert and Tandsiwa Ngxukumeshe

- An examination of the impact of organisational culture on integrated communication: the case of the Government Communication and Information System in Polokwane. 263
Chuene Alfred Semono.....
- Exploring the integration of complexity leadership theory and the Cynefin framework 276
Lelani Maree; Maret Swart and GJP Human
- Artificial intelligence in managerial decision-making: a comprehensive bibliometric analysis, thematic mapping, and regional representation from 1989 to 2023 ... 287
Lodewikus Johannes Janse van Rensburg.....
- The role of strategic intelligence in strategic management 303
Dinko Herman Boikanyo
- The role of strategic innovation and strategic leadership in strategic management in a VUCA world..... 316
Dinko Herman Boikanyo
- The influence of strategic direction and organisational culture on the performance of SMEs in Nelson Mandela Bay..... 330
Nceba January, Trevor Amos
- ‘Blind visions, and no reasons or, a management vexation P3: parochiality, prosaicism and platitudes..... 341
Geoff A Goldman

Human Resource Management 356

- The influence of the Covid-19 pandemic on the professional identities of health care workers 356
Shushentha Naidoo and Shaun Ruggunan.....
- A critical review of artificial intelligence literature: Chat GPT use and effects in the modern world 377
Dr Justus Nyongesa Wesonga¹ and Prof Johan van der Westhuizen
- A critical review of the literature on the relationship between knowledge management and organizational performance: a worldwide perspective..... 384
Justus Nyongesa Wesonga¹, Prof Johan van der Westhuizen
- Recruitment and selection trends within the Eastern Cape automotive sector.. 395
Juliet Townes; Zikhona Dlaza and Sihle Mqwelana
- A new human resource management frontier: How to have a religiously inclusive workplace?..... 413
Jeffrey J Bagraim.....
- The influence of intrinsic rewards on artisan retention in the South African Automotive Industry 421
Mthokozisi Mpofu, Ilze Swarts, Lize van Hoek, Chris Jordaan, Sanchen Henning .

- Exploring the Application of Talent Return on Investment at a Selected South African Waterboard Organisation 439
Nte Toto Molobye¹; Emmerentia Nicolene Barkhuizen² and Nico Eric Schutte
- Advancing human resource decision making: The impact of individual cultural orientation in a university setting 454
Mojalefa Alphonse Titisi
- The effects of Human Resource Practices on employee engagement within an organisation. 476
Mathapelo Bertha Moletsane
- Work engagement among frontline employees (FLEs): antecedents and consequences 489
Juliana Ngonyo Kibatta and Michael Samuel Olorunjuwon.....

Logistics and Supply Chain Management 504

- A typology of the legal aspects of ethical supply chain management in the fast-moving consumer goods industry of South Africa 504
Elizabeth Chinomona; Tafadzwa Chivhungwa and Chenedzai Mafini
- Modelling the influence of supplier and customer coordination on social performance: Construction industry in the Gauteng province 517
Elizabeth Chinomona and Montso Elizabeth Mosidi
- The impact of information and communication technology capability on supply chain management capabilities: The case of four municipalities in the uThukela district 529
Nosipho Nontokozo Makhubu and Osayuwamen Omoruyi.....
- Policies and regulations influencing the implementation of sustainable procurement practices in Gauteng state-owned enterprises 542
Sylvester Vusi Baloyi; Intaher Marcus Ambe and Winnie Dlamini
- Sustainability in the supply chain management department in a South African municipality 558
Francis Tangwo Asah and Progress Hove-Sibanda

Management Education 571

- The outcome of the discontinuation of cheques on bank reconciliation in South Africa 571
Estelle Abrahams and Tania Pretorius.....
- Technology-enhanced teaching strategies for leadership development: A qualitative exploration of RETAIL LEADERSHIP education 584
M Frazer
- Identifying critical factors influencing the effectiveness of technology in teaching and learning in higher education during the Covid-19 pandemic: a systematic literature review 599
Tlotlo Segotso; Ngozi Blessing Enebe; Lillian Ifananya Nwosu and Tabe Hennades

Non-Digital Marketing.....	614
- Building customer loyalty through rewards, trust and satisfaction: The special case of South Africa 614 <i>Edwin Theron and Phoebe van Heerden</i> <u>Exploring the state of creativity in the South African advertising industry: ten insights from the experts</u> 627 <i>Debbie Human-Van Eck and Roan Kruger</i> - Building competitive MCC brands through marketing strategy adaptation during the Covid-19 pandemic: evidence from Western Cape winelands, South Africa..... 640 <i>Kuhle Zwakala and Pieter Steenkamp</i>	
SME Entrepreneurship and family business	654
- The Impact of Destructive Conflict in An Integrative Family Business Succession: A South African Study 654 <i>Victoria Adekomaya; Shepherd Dhlwayo and Edwin Ebenkele</i> - Value transmission: Socialisation agents in the context of indigenous Black South African business families..... 665 <i>Welcome Kupangwa; Shelley Maeva Farrington and Elmarie Venter</i>..... - The impact of Covid-19 to family businesses in Gauteng 694 <i>Radebe M. Sarah</i>..... - Digital skills and competencies for the adoption of 4IR technologies by SMEs in developing and developed countries: a meta-synthesis..... 702 <i>Lebogang Tryphina Mosupye-Semenya</i>	
Tourism Event and Hospitality Management	714
- The contribution of the Melville Koppies to nature-based tourism in the city of Johannesburg 714 <i>Renaldy Nkogho Beyeme and Peta Thomas</i> - Vacation intentions of visitors to a branded resort group amidst COVID-19 726 <i>Elizabeth Ann du Preez</i> - Challenges of attending women's soccer events in Gauteng, South Africa 744 <i>Paulina Maria Ngubeni, Peta Thomas</i>	
WORKSHOPS.....	756
ISBN NUMBER	757
ERRATA	799
- Impact of working from home on employee motivation and job satisfaction on non-academic employees 757 <i>Dorothy Miruka, Aretha Mazingi</i> - Religious accommodation in the workplace: Lessons for human resource managers from recent legal judgements 776 <i>Jeffrey J Bagraim</i>	

MESSAGE FROM SAIMS BOARD CHAIRPERSON

Dear conference delegates

What a privilege to meet in person again at the 34th conference of the Southern Africa Institute of Management Scientists, held from 10 to 13 September 2023. We are grateful to the staff at Akademia, specifically the Department of Management, which organised this conference in challenging times! We have entered a new era in academia with endless possibilities and opportunities.



The conference theme, *Management Potential P³*, gives hope and shows commitment to developing new ways of doing. We are constantly exposed to new possibilities, which challenge our pioneering capabilities, leading to progress in management sciences. We are still in a transitional phase where changes are implemented in different ways. This phase challenges our existing models both from a teaching and learning and research perspective. With that said, it provides an ideal opportunity to drive pioneering innovations related to operational, structural, managerial and behavioural innovations. Hopefully, this will lead to higher levels of resilience moving forward.

The programme is exciting and interesting! It allows delegates ample time to present their research and extend networks. Our keynote speakers promise to provoke discussions and insights into current issues. Take time to interact with them and ask the burning questions that can influence future research directions.

On behalf of the board, I would like to take this opportunity to express our sincere gratitude to Mrs S Boshoff and her team from Akademia! Your creativity and dedication amaze me every time! We know what it takes to organise such a conference, and hopefully, you will have some time afterwards to rest! To our esteemed sponsors, thank you for supporting SAIMS and for your generosity and participation. Without you, the conference will not be the same. To our members and conference delegates – you are the conference! Thank you for sharing your contributions at this conference. I hope this will be a valued experience for you as management scientists.

As I am finishing my term as Chairperson of SAIMS, I want to thank the board of directors of SAIMS for your support over the last few years. It was an honour to work with you and build the presence of this organisation. Thank you to all the members of SAIMS for your input to this organisation and may you continue to be part of SAIMS. To our new Chairperson, Dr D Human – may you find the same joy in leading this organisation as I did and may you and the Board take it to the next level it deserves to be!

I wish you a successful and inspiring conference. Make a difference wherever you are!

Prof Elmarie Slabbert: Chairperson: SAIMS

MESSAGE FROM THE CHAIRPERSON OF THE 34TH ANNUAL SAIMS CONFERENCE

Dear Delegates

It is with great pleasure that welcome you to the 34th SAIMS Conference, hosted by Akademia, brimming with boundless Possibilities, Pioneering ideas, and Progressive suggestions. Brace yourselves for a programme that promises to unlock the Management Potential of Southern African Management Scientists. This year's theme, "**Management Potential P3: Possibilities, Pioneering, and Progress**," aims to challenge your perspectives by fostering fresh possibilities through pioneering research and innovative suggestions that propel us to the next level. In lieu of a pioneering departure from our usual conference format, we are excited to introduce five workshops designed to ignite debates and discussions around best practices in teaching, learning, and practice. We wholeheartedly invite each one of you to participate in these engaging 90-minute sessions.



Our keynote speakers were carefully chosen to complement the overarching theme. **Boshoff Grobler**, representing the Adventure Institute, will share insights from a recent study, addressing the persistence of socioeconomic inequality and the factors that either activate or disengage individuals in the pursuit of socioeconomic equality. **Prof. Herman Singh**, a visionary thinker encompassing Business, Technology, Leadership, and Creative skills, will delve into the concept of Ambidextrous leadership, exploring the dynamics of exploitation and exploration. **Marno Boshoff**, from King Price, will illuminate the possibilities of cultivating a robust corporate culture. **Zeenat Norton** of Oxford Publishers will guide us in "Building Futures," providing an in-depth exploration into the emerging horizons of education. **Brian Wafawarowa**, representing JUTA Publishers, will grace our gala dinner, shedding light on the significance of our heritage in shaping our future.

We are immensely grateful for the support of our sponsors this year. JUTA Publishers deserves special mention for their invaluable contribution in making the beautiful gala dinner at Klein Kaap a memorable occasion. We extend our thanks to Oxford Publishers for adding sparkle to our Monday night festivities at the Moonshot Café. Van Schaik Publishers joined hands with Sparrow Society to craft the exquisite conference bags. We express our gratitude to Maskew Miller Learning for the delightful spitbraai served at Monday's lunch. Acta Commercii is the proud sponsor of Sunday night's opening function. We also acknowledge the School of Financial Planning Law at the University of the Free State for treating us to an interesting coffee tasting on Monday morning. Finally, I also want to thank Akademia for providing us with the beautiful venue and for the unwavering support of their dedicated teams in orchestrating this conference. We also extend our thanks to SAIMS for their sponsorship of ConfTool and best paper award with Management Dynamics. A heartfelt thank you to the following organisations and publishers for their generous financial support: SBM, SAIMS, Management Dynamics, Pearson, Cengage, Payfast, Adventure Institute, SAIBA, Wizebooks, Stratus Technologies, Sumus, MASA, and Airalo.

To my **incredible team**, I want to reiterate that organising a SAIMS conference is a collaborative effort. I deeply appreciate Dr Sandra Adendorff and Christine Terblanche, along with their dedicated proceedings team (Nadia Hunt, Chalte Venter, Mariska Wannenbourg, Bernard Odendaal, Zandri van der Merwe, and Nikkie Kennedy), for their exceptional handling of all papers, reviews, and results

through ConfTool. Jaun Kriel and Leah van Heerden, your diligent work in organising captivating events has been truly remarkable, and I will miss our frequent meetings dearly. Monique Visser, Chané Naude, and Llewellyn Barkhuizen, thank you for capably managing all administrative duties. Delicia Bezuidenhout, your assistance with marketing and lunch arrangements has been invaluable. Elizma van Zyl, your unwavering support has been a lifeline in organising my thoughts. Elize-Mari Coetzer and Marthe-Mari Herbst, thank you for the professional way in managing and assisting with the keynote speakers. To Morné Venter, thank you for your assistance with the technical team. I would like to extend a special shout-out to other members of Akademia who have been willing to lend a helping hand: Tinus Dodds, Desmond Stols, Jaco-Louis Kruger, Dr Rachel Maritz, Suné Potgieter, Zydalia and her communication team, Rika Nieuwoudt, Anel Ehlers, and Leoni Swanepoel.

Thank you all for your unwavering dedication and support, which have made this conference possible. Together, we are poised to make this year's SAIMS Conference an exceptional and enriching experience. We are excited to announce that the 2024 conference will be hosted by Stellenbosch University.

Regards

Salomien Boshoff

ORGANISING COMMITTEE

Conference Committee



Salomien Boshoff
Conference Chair



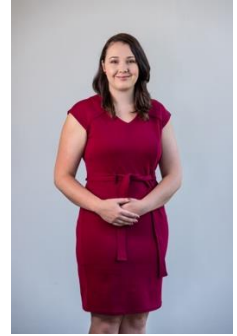
Juan Kriel
Functions



Leah van Heerden
Functions



Monique Visser
Administration



Chane Naude
Administration



**Llewellyn
Barkhuizen**
Administration



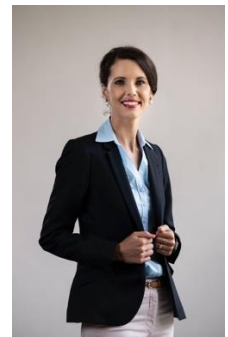
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Morne Venter
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Elize-Mari Coetzer
Keynote and Care



Elize-Mari Coetzer
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Programme*



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Mariska Wannenburg

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Proceedings



**Zandri van der
Merwe**

Proceedings



Nikky Kennedy

Proceedings

REVIEW PROCESS

SAIMS 2023 CONFERENCE: REVIEW PROCESS

Akademia hosted the 34th annual conference of the South African Institute of Management Sciences, held at Leriba, Centurion in Gauteng from 10-13 September 2023.

The call for papers and review process were as follows:

- 1) The first call for papers was distributed on 17 February 2023, followed by a final call for papers on 26 May 2023.
- 2) Full paper and work-in-progress contributions were submitted on the Conf Tool website and system. The final date for submission was 19 June 2023.
- 3) The number of papers was 108; which included 61 full papers and 42 work-in-progress papers. Five workshops were also registered on the system which added to the total.
- 4) All submitted papers were double-blind reviewed. The author's identity was not provided to the reviewers and was only known to the administrator and organizing committee of the conference.
- 5) All reviewers were assigned, distributed, and recorded on the ConfTool system. The reviewers were assigned based on their expertise and priority topic and also received reviews on their ConfTool profile. The reviewers also completed the reviews and entered the scores for the papers on the ConfTool system.
- 6) Reviewers were requested to give a score out of 10 for the following elements of the full paper they reviewed:
 - Relevance of the topic
 - Opening paragraph
 - Brief review of previous research
 - Problem statement
 - Purpose statement
 - Research questions/ objectives
 - Contributions of the proposed study
 - Writing style and
 - Technical care of the paper
- 7) The review committee of the conference reviewed all the scores and feedback provided, and where there were significant differences between the scores of the two reviewers, a third reviewer was assigned.
- 8) Of the 61 full papers received, all were accepted. The acceptance rate was, accordingly 100 per cent. However, 4 papers were withdrawn from the conference (this included papers that were not resubmitted after the review process, and 14 were accepted as work-in-progress papers). At the conference, 47 full papers were presented.
- 9) In terms of the work-in-progress papers 42 were received, 14 full papers were accepted and 0 were rejected and 3 were withdrawn from the conference. The acceptance rate without the withdrawn papers is 100 per cent.
- 10) The authors were informed of the review outcome through the ConfTool system, where they could also access the comments and feedback from the reviewers. The authors were informed to incorporate the reviewers' comments and upload the final version on the ConfTool

CONTRIBUTION OF INSTITUTIONS

Institution	Number of full papers	Institutional average
Cape Peninsula University of Technology, South Africa	2	3
Central University of Technology, South Africa	1	1.5
Johannesburg Business School, South Africa	1	1.5
Nelson Mandela University, South Africa	4	6
North-West University	8	12
Rhodes University, South Africa	2	3
Sol Plaatje University, South Africa	2	3
Stadio, South Africa	1	1.5
Stellenbosch University, South Africa	8	12
Tshwane University of Technology	2	3
The Independent Institute of Education, South Africa	1	1.5
University of South Africa (UNISA)	3	5
University of Cape Town	3	5
University of Fort Hare, South Africa	1	1.5
University of Free State, South Africa	2	3
University of Johannesburg	12	18
University of Pretoria	2	3
University Nigeria Nssuk	1	1.5
University of KwaZulu-Natal, Durban, South Africa	2	3
University of the Witwatersrand, South Africa	2	3
University of the Western Cape, South Africa	1	1.5
Vaal University of Technology, South Africa	3	5

LIST OF REVIEWERS

Surname and Initials	Institution
Adekomaya V	University of Johannesburg
Adendorff S L Dr	Akademia
Alsemgeest L Prof	University of the Free State
Aluoch RA	Vaal University of Technology
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Antoni X Dr	Rhodes University
Asah FT Dr	Nelson Mandela University
Bagraim JJ Prof	University of Cape Town
Baloyi SV	University of South Africa
Boikanyo DH Dr	University of Johannesburg
Boshoff S	Akademia
Bothma M Dr	North-West University
Burger A	Akademia
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Chinomona E Prof	Vaal University of Technology
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Mfazi S	University of Fort Hare
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Mlobothi L	Walter Sisulu university
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Nkogho Beyeme R	University of Johannesburg
Nwosu L Dr	North-West University
Oben JA	University of South Africa
Obokoh L Prof	University of Johannesburg
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Oyekunle JO	University of South Africa, Pretoria
Pentz C Prof	Stellenbosch University
Pettersen IB Prof	Western Norway University of Applied Science
Pike-Bowles AP	University of Fort Hare
Pretorius T	Sol Plaatje University
Proos E Dr	Central University of Technology, Free State
Rachidi M Prof	University of Limpopo
Radebe MS	University of South Africa
Schreuder AN Prof	University of Pretoria
Schutte N Prof	University of the Western Cape
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Semono CA	University of the Western Cape
Steyn JP	Stellenbosch University

Strauss H	Unisa
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Van Schalkwyk AS	University of Pretoria
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Venter C	Akademia
Venter M	Akademia
Verbeek JL Dr	University of Pretoria
Wannenburg M	Akademia
Wesonga JN Dr	Vaal University of Technology
Williams AS	Rhodes University
Zwakala K Dr	Cape Peninsula University of Technology
Zwane E Dr	University of Limpopo

BEST PAPER AWARD

Best Paper Award

The award is hereby certified to

Petrus Johannes Steyn

For the contribution titled
*The opportunity presented by
price momentum in frontier
African equity markets*

at the
SAIMS2023 Annual Conference



Prof Elmarie Slabbert
Chairperson: SAIMS



Salomien Boshoff
Chairperson:
SAIMS2023 conference



SAIMS 2023



University of Stellenbosch

SPEAKERS AND KEYNOTE SPEAKERS

Boshoff Grobler –
Adventure Institute

Possibilities on
socio-economic
inequalities.



Prof Herman Singh –
Future Advisory

Ambidextrous
leadership based
on exploitation
and exploration.



Marno Boshoff –
King Price

‘Culture eats
strategy for
breakfast’.



Zeenat Norton –
*Oxford University
Press*

Building Futures:
An Exploration into
Education’s Emerging
Horizons.



Brian Wafawarowa –
Juta and Company

From Ink Pots to Artificial
Intelligence - Juta@170:
Management reflections
of a long (and interesting)
business life.



Christiaan J Steyn –
Steyn IP

Create and Protect.



CONFERENCE SPONSORS



CONFERENCE FOCUS AREAS

Accounting, Economics, Banking and Insurance

Consumer Behaviour

Corporate Citizenship and Business Ethics

Digital Marketing and Social Media

Finance, Risk and Investments

General and Strategic Management

Human Resource Management

Logistics and Supply Chain Management

Management Education

Non-Digital Marketing

SME Entrepreneurship and family business

Specialised Topics

Tourism Event and Hospitality Management

CONFERENCE PAPERS

ACCOUNTING, ECONOMICS, BANKING AND INSURANCE

Exploring the Impact of Selected Interventions on the Performance of First Year Accounting Students

Lorelle D. De Villiers and Shelley M. Farrington

Nelson Mandela University, Gqeberha, South Africa

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ABSTRACT

The primary objective of this study was to explore the effectiveness of selected targeted interventions implemented among first year accounting students at a South African residential university. A quasi-experimental design was adopted, and ANOVA and t-tests were undertaken to assess whether differences in the academic results achieved by students participating in three targeted interventions, and a control group, were significant or not. The Language support group reported higher results than the Accounting support and Peer mentoring groups. The Accounting support group reported significantly lower exam results, highlighting the need for English language proficiency and Matric accounting for success in first year university accounting. Recommendations are that learners be given appropriate advice at high school to ensure that subject choices support academic understanding of accounting at university. Integrated discipline-specific language support within the accounting curriculum should also be provided. The findings offer evidence that the interventions implemented were successful, providing a starting point for evaluating the effectiveness of interventions in improving academic performance in accounting.

Key words: Interventions, first year accounting, language support, accounting support, peer mentoring

INTRODUCTION AND BACKGROUND

Internationally the number of students pursuing tertiary education has grown over the past two decades and this growth trend is expected to continue (OECD, 2019). Since 1994, South Africa has also witnessed significant growth in enrolments at tertiary education level (DHET, 2018; Stats SA, 2017). Despite this growth, graduate outputs at South African tertiary institutions have not kept pace

and are a major concern (Education Statistics SA, 2020; OECD, 2019; Matsolo, Ningpuanyeh and Susuman, 2018; Erasmus and Fourie, 2018). Approximately 40 percent of all first-year students in South Africa do not complete their degrees (Marwala and Mpedi, 2022). According to a 2019 government review of the first 25 years of democracy, in the 2010 cohort, 22 percent of students achieved a three-year degree within three years, only 39 percent completed their degrees by the fourth year, and only 56 percent of students completed their degree by the sixth year (Marwala and Mpedi, 2022; Education Statistics SA, 2020). The performance of students in accounting programmes is of particular concern. According to several authors (Velasco, 2019; Van Romburgh, 2014; Barnes, Dzansi, Wilkinson and Viljoen, 2009), underperformance and failure in accounting, especially in the first year, is a major challenge experienced by many universities in South Africa and worldwide.

Within the academic community and beyond, it is believed that the main reason for the underperformance of students at tertiary education level in South Africa is that most are not prepared for tertiary level studies. Both Marwala and Mpedi (2022) and CollierReed, Wolmarans and Smit (2010) report that South African schools do not deliver students that are prepared for higher education. To address some of the dimensions of under preparedness, the use of various interventions has been introduced in the field of education, including the field of accounting education (Stats SA, 2017; Sneyers and De Witte, 2017; Graham, Hampton and Willett, 2010). Intervention programmes are reported to have a positive influence on adjustment to university as well as on academic performance (Boulter, 2002 as cited in Petersen, Louw and Dumont, 2009). Harackiewicz and Priniski (2018) suggest that well-crafted and targeted interventions can be powerful in increasing the levels of graduate outputs in higher education.

Numerous studies have investigated the use of interventions among accounting student in general (Zehetner and Steinkellner, 2019; Merino and Aucock, 2017; Jackling and McDowall, 2008), as well as among first-year accounting students (Joynt and De Villiers, 2019; Winfield and Luyt, 2013; Fox, Stevenson, Connelly, Duff and Dunlop, 2010). Although these studies support a positive relationship between interventions and improved performance in accounting, the association between targeted interventions to address academic deficiencies and academic improvement, is seldom evaluated to determine interventions' effectiveness (Joynt and De Villiers, 2019; Harackiewicz and Priniski, 2018). Furthermore, as far as the researchers could establish, a dearth of research exists investigating the association between targeted interventions and improved performance among first year accounting students in the South African university context.

Intervention research provides valuable information about what happens when attempts are made to improve educational outcomes through planned manipulation. From a theoretical perspective, intervention studies help move the field forward by providing insight about the contributing relationships between educational settings and motivation outcomes (Cook, Campbell and Shadish, 2002). From a practical perspective, intervention studies assist with understanding which interventions are most effective in improving educational outcomes in a way that observational research cannot. Education researchers are ultimately interested in how to structure the educational context to achieve student learning outcomes. The aim is to develop interventions that facilitate student learning and performance, and this requires testing the extent to which the interventions create the kind of change in students and teachers that has been envisioned. Intervention studies offer the opportunity to make great advances in theoretical and practical knowledge about education (Lazowski and Hulleman, 2016).

Given South Africa's financial and social constraints, it is vital to determine the effectiveness of interventions so that resources can be focused on efforts that will produce the best possible return (Joynt and De Villiers, 2022). It is against this background that the problem statement and primary objective for this study are formulated. Thereafter, a literature review, the methodology and the

empirical results are presented. The empirical results are then discussed and based on these implications, recommendations, limitations, and contributions are highlighted.

PROBLEM STATEMENT AND PRIMARY OBJECTIVE

Low pass rates and high non-completion rates in accounting call for accounting-specific (targeted) academic interventions (Velasco, 2019). Prior studies conclude that interventions are effective (Jackson, 2014; Domina, 2009), but the association between targeted intervention programmes and academic improvement has seldom been assessed rigorously (Joynt and De Villiers, 2019). It is with this problem statement in mind that the primary objective of the current study was to explore the effectiveness of selected targeted interventions implemented among first year accounting students at a South African residential university.

Significant predictors of success in introductory accounting modules are prior knowledge of accounting and a good grounding in English (SAICA, 2023). Students are also more likely to be successful if held to high expectations, provided with support, and engaged in the process (Tinto, 2012). Interaction with peers outside the classroom produces cognitive growth and positive gains in writing and thinking (Skoglund, Wall and Kiene, 2018). For this reason, the selected targeted interventions under investigation in this study were Accounting support (for students with no prior knowledge of accounting), Language support (for students who are second language English speaking) and Peer mentoring. Furthermore, Winfield and Luyt (2013) maintain that interventions are more effective when targeted and integrated in the relevant discipline, as opposed to being generic university-wide offerings. Therefore, these selected interventions were made available to first year accounting students by the accounting department within the residential university.

LITERATURE REVIEW UNDERLYING THEORY

Several theories have been put forward to explain the academic performance of students. The theory adopted to explain the effectiveness of interventions implemented on the performance of first-year accounting students in the current study is that of the theory of change.

The main purpose of an intervention is to prevent or fix problems (Joynt and De Villiers, 2019). Interventions attempt to produce change, which is grounded in the theory of change. The theory of change clarifies intervention logic, it defines end goals and then plots backwards to ascertain preconditions that need to happen to bring about the change. The theory of change provides a working model against which to test assumptions about what activities will best bring about the anticipated outcomes (Taplin, Clark, Collins and Colby, 2013). Envisaging and implementing new ideas is only half the innovation. The other half involves testing whether the change results in improvement in the process and the activities being changed (Astin and Antonio, 2012). The purpose of academic interventions among students is to address change, prepare students for their new environment (Moeketsi and Mgutshini, 2014; Brock, 2010) and to assist academic under preparedness (Goldstein,

Sauer and O'Donnell, 2014; Domina, 2009). In the current study, assumptions are being tested about the effectiveness of the interventions of Accounting support, Language support, and Peer mentoring, among first year accounting students.

THE NATURE AND USE OF EDUCATIONAL INTERVENTIONS

Institutions of higher education regularly implement a variety of interventions to reach their goals of higher educational attainment and student success (Sneyers and De Witte, 2017; Brock, 2010). Interventions focus on physical orientation and social interaction (Krause, 2011) or on addressing teaching and learning issues (Pitkethly and Prosser, 2001). For interventions to be successful they must be learner-centred; have education as the goal and produce opportunities for students to

acquire the skills for academic success; and should address students' needs early in their academic career (Winfield and Luyt, 2013; Kuh, 2009).

To date several studies have investigated the use and success of academic interventions. Harackiewicz and Priniski (2018) report that interventions can improve student outcomes but argue that more must be done to measure proven practices and to test new ideas that might lead to better results. Hattie (2009) concludes that interventions are most effective when they are incorporated into the regular classroom context, encourage a high level of student activity, and provide opportunities for students to raise their level of metacognitive awareness. Sneyers and De Witte (2017) found that student mentoring has the largest influence on student outcomes affecting both student retention and graduation significantly. Ogude, Kilfoil and Du Plessis (2012) found that the key to success lies in joining and aligning existing institutional initiatives on staff development (curriculum and teaching methodologies) and student development (advising, mentoring, tutoring) purposefully around mainstream academic modules or programmes.

Interventions have been used extensively in the field of accounting education. Studies have investigated the use of interventions such as stimulation exercises (Zehetner and Steinkellner, 2019), the development of personal skills, decision-making and communication (Merino and Aucock, 2017), and peer mentoring (Jackling and McDowall, 2008). These studies all support a relationship between an intervention and improved performance in accounting. For example, Zehetner and Steinkellner (2019) initiated an intervention in financial accounting modules aimed at reducing class-related boredom and found that it had a positive impact on the dropout rates as well as the average grades of students. Merino and Aucock (2017) report that an intervention designed to develop personal attributes such as lifelong learning, analytical decision-making and communication skills of prospective entrants into the accounting profession, significantly influenced the performance of students who participated in the intervention in comparison to their peers that did not. Jackling and McDowall (2008) conclude that peer mentoring as a classroom resource in the teaching of accounting concepts in a second-year accounting programme was beneficial to the majority of students and demonstrated how mentoring can be a reciprocal process, in that the mentor's skills can be enhanced while fulfilling a supporting role to junior students.

Several studies have also investigated innovative interventions implemented among first-year accounting students with the aim of either improving the quality of learning for beginner students or to change students' negative perceptions of accounting (Joynt and De Villiers, 2019; Winfield and Luyt, 2013; Fox et al., 2010). Joynt and De Villiers (2019) found a positive association between attending a pre-university course, before students start the formal academic first year, and academic performance in the first formal assessment in introductory accounting. Winfield and Luyt (2013) describe an intervention identifying at-risk first-year students in the Chartered Accounting stream and provided them with additional support of both an academic and psychosocial nature. They found the intervention to be very successful in improving the progression rates from first year to second year Financial Reporting. Fox et al. (2010) found that students who participated in student peer mentoring programmes, where volunteer third-year accounting students acted as mentors to first-year accounting students, demonstrated increased academic performance in comparison to students who did not participate.

The literature suggests that factors significantly influencing academic performance in introductory accounting include having a background knowledge of school accounting, being proficient in the English language, and being engaged with peers (SAICA, 2023; Tinto, 2012; Jackling and McDowall, 2008). Interventions relating to these factors are under investigation in the current study and will be elaborated on in the paragraphs that follow.

AREAS OF INTERVENTION

Many studies on the relationship between taking accounting as a school subject and academic success in the first year of accounting at university support the belief that taking accounting in Matric contributes to higher academic performance in the first year of accounting at university (Onay and Benligiray, 2018; Papageorgiou, 2017). The reason for the advantage is believed to be the close overlap between high school and the first-year university curricula and the foundation provided by high school accounting for the first-year accounting module (Barnes et al., 2009).

A variable proving to have a significant influence on passing or failing a module is home language. Students with a first language the same as the language of instruction have significantly higher pass rates compared to those without (Smith, Therry and Whale, 2012). Fakude (2012) found that students whose home language is different to the language used in the presentation of academic work (medium of instruction), experience challenges at university as many struggle to first come to terms with the language before they can understand what is expected of them in the subject.

Additionally, language barriers often make the shift to university a challenge, particularly regarding written and verbal communication. The medium of instruction at most tertiary institutions in South Africa is the English language and success at tertiary level is influenced by proficiency in the English language (Bokana and Tewari, 2014). Scholars (Bobe and Cooper, 2019; Barnes et al., 2009) have found that studying with English as second language makes the student a riskier candidate in first year accounting. Rivero-Menendez, Urquia-Grande, Lopez-Sanchez and Camacho-Minano (2018) found that students who study in English were more confident in the comprehension of accounting concepts and difficult accounting issues.

Tinto's integration theory (Tinto, 1975) suggests that feelings of academic or social separation often leads to dropping out of university. Academic or social separation can be reduced if a sense of connection is developed. For example, learning communities that are formed at the onset of tertiary studies contribute to increased self-efficacy and retention (Joynt, 2022). According to O'Keeffe (2013), a sense of connection emerges when a relationship with just one other key person within a tertiary institution develops and this relationship can significantly influence a student's decision to continue with his studies. Through mentoring, such relationships can be developed. Mentoring is seen by many as a critical feature of undergraduate education, since it has the potential to improve social and academic integration (Winfield and Luyt, 2013; Jackling and McDowall, 2008).

Several studies report that students participating in student peer mentoring programmes in accounting achieve stronger academic performance than those who do not (Fox et al., 2010; Jackling and McDowell, 2008). According to Fox et al. (2010), a peer mentoring intervention focuses on aiding the transition to university life, developing a sense of belonging to a community and enhancing both coursework and exam revision skills. The student's peer group is the single most powerful source of influence on growth development during the undergraduate years (Barefoot, 2000). Jackling and McDowell (2008) found that although mentoring might not relate directly to academic achievement, students and mentors reported experiencing mentoring in accounting as beneficial and felt a greater sense of belonging to the faculty as well as greater levels of satisfaction with and commitment to the institution. There is evidence that even a short-term peer mentoring programme offers significant benefits which persist over long periods of time (Fox and Stevenson, 2006).

It is against this background that the three interventions implemented and evaluated in the current study relate to Accounting support, Language support and Peer mentoring.

RESEARCH DESIGN AND METHODOLOGY

The current study adopted a quantitative, quasi-experimental design within the context of an introductory accounting module. Quasi-experimental research designs are similar to true experiments in that there is manipulation of an independent variable, but the major difference is that the participants are not randomly assigned to groups (Struwig and Stead, 2013). Quasi-experiments are most likely to be conducted in field settings in which random assignment is difficult or impossible. The researcher has less control over confounding variables in quasi-experimental research than in the true experiment (Struwig and Stead, 2013). Quasi-experiments are often conducted to evaluate the effectiveness of a treatment like an educational intervention (Crump, Price, Jhangiani, Chiang and Leighton, 2018).

To undertake the current research, the sample was divided into an experimental and a control group. An experimental group refers to the group within a research study that gets treatment (the intervention) and is subjected to analysis, to ascertain the extent to which the intervention effected the experimental group (Erasmus and Fourie, 2018; Academic sources, 2017). A control group refers to the group that does not get any treatment or consideration from the researcher (Erasmus and Fourie, 2018). In the current study the experimental group participated in the interventions implemented (Accounting support, Language support and Peer mentoring), whereas the control group received no intervention and was exposed to standard practice.

THE INTERVENTIONS

Three inventions were implemented and evaluated for the purpose of this study. A brief description of their purpose and how they were implemented is summarised in Annexure 1. The interventions had three objectives: to assist in the transition from high school to university by developing a connection within tertiary education, addressing under preparedness in accounting and to increase the academic performance of participants in their first semester of accounting studies.

POPULATION, SAMPLING AND SAMPLE SIZE

It is well supported in the literature that the chances of success are improved if interventions are delivered within the first six weeks of university study (Joynt, 2022; Winfield and Luyt, 2013). Therefore, the population for the current study consisted of all students who were registered for a first-year, first semester accounting module at the chosen South African residential university. From the university's Information Technology System (ITS) it was established that 342 students were registered for the module. To identify the sample, purposive criterion sampling was used. A predictive model, based on biographical and educational secondary data, developed by De Villiers (2017) for identifying students at risk in first year accounting, was used to identify the sample. The statistically significant predictor variables of all students registered for a specific first-year undergraduate accounting module served as input for the model. Upon calculation, the predictive model identified 235 of the 342 students who were registered for that module as being at-risk (i.e., they met the predetermined criteria). Of the students identified as being at-risk, 96 were registered for an Accounting degree programme intending to major in Accounting. These 96 students were the focus of the interventions.

During the first week of the first semester, prior to commencing with the specific accounting module at university, the 96 at-risk students were invited by email to attend an information session where the interventions on offer and the commitment required was explained, and their voluntary participation was requested. Of the 96 students, 57 consented to participate in the interventions over the first semester at no cost to them. Students were required to sign a consent and a commitment form, and based on their individual needs were allocated to take part in one of the three interventions on offer (see Table 1). These students were each allocated to one intervention and served as the experimental groups, or intervention groups in this study. The other 39 students that did not participate in the interventions served as the control group.

TABLE 1 INTERVENTION ALLOCATION CRITERIA

Intervention	Description
Accounting support	At-risk first year accounting major students who had not done accounting in Matric.
Language support	At-risk first year accounting major students who were second language English.
Peer mentoring	At-risk first year accounting major students who had done accounting in Matric and were English first language.
No intervention (control group)	Accounting major students who were identified as at-risk but did not volunteer to participate in the above interventions.

Source: Self constructed

Students were required to sign an attendance register at each intervention session. Prior to undertaking the statistical analysis, this attendance data was used to eliminate the data of any student that had attended less than half of the intervention sessions offered for a particular intervention. The final sample size and the number of students allocated to each intervention group and the control group are summarised in Table 2 below.

TABLE 2 SAMPLE SIZE

Intervention	Initial sample	Final sample
Language support	33	15
Accounting support	12	11
Peer mentoring	12	12
Control	39	39
Total sample size	96	77

Source: Self constructed

SAMPLE DESCRIPTION

From Table 3 the sample of students, whose data was used for the statistical analysis, mostly spoke an African language (61%) and were female (57%). In addition, the majority (70%) of the sample had done Accounting as a Matric subject.

TABLE 3 SAMPLE DEMOGRAPHICS

Language	Frequency	Percentage
African	47	61
English	30	39
Total	77	100
Gender	Frequency	Percentage
Male	33	42.9
Female	44	57.1
Total	77	100
Matric Accounting	Frequency	Percentage

Yes	54	70.1
No	23	29.9
Total	77	100

Source: Self constructed

DATA COLLECTION AND ANALYSIS

Historical assessment data (academic results) from both the intervention and the control groups was collected over the period during which the selected interventions were implemented. Assessment data (academic results) for each of the participating students was collected from the database of the relevant accounting department and the university's ITS at the end of the first semester. The use of institutional data is not uncommon among studies of this nature (Smith et al., 2012; Barnes et al., 2009). Several module assessments were undertaken during the period in which the interventions were implemented. It is the results of these assessments that were subjected to analysis. The accounting module's formative assessments are made up of two semester tests as well as small weekly tests and a group assignment, which together constitute the class mark. At the end of the semester, students are required to write a three-hour exam. The data was analysed using descriptive statistics, analysis of variance (ANOVA) and t-tests. Given the nature of the study, ethics approval was obtained via the normal channels at the chosen university.

TRUSTWORTHINESS

Although the current study is quantitative in nature, the historical and secondary nature of the data makes assessing its validity and reliability, as is normally done in quantitative studies (Struwig and Stead, 2013), somewhat problematic. Therefore, establishing the trustworthiness and rigour of the research process was considered more suitable. *Trustworthiness* relates to concerns about the extent to which research is to be trusted and believed (Struwig and Stead, 2013), whereas *rigour* implies that the researcher uses rigorous, precise, and thorough methods to collect, record and analyse data. Confidence in the data for this study was assured as the data was obtained from the university's ITS, which was downloaded from the Department of Education's database. One assumes that this data has been captured correctly. Data available from the student information database of the relevant accounting department can be considered accurate and credible as it is made available to students throughout the semester, and they are requested to confirm its accuracy. The data used in this study was meticulously combined into one Microsoft Excel database. This was done by a person other than the researchers. To ensure that the data was captured into the database correctly, it was verified during the capturing process by the data-capturer, and again after the data had been captured, by both the data-capturer and the researchers.

EMPIRICAL RESULTS DESCRIPTIVE STATISTICS

The data collected for the accounting module assessments is summarised in Table 4 where it can be seen that differences in mean scores achieved for the various module assessments are reported between the groups.

TABLE 4 ASSESSMENT DATA

Intervention Type		Semester Test 1	Semester Test 2	Class Mark	Exam Mark
Language support (N=15)	Mean	57.33	44.47	53.67	54.13
	Median	58.00	44.00	54.00	56.00
	Std.Dev	11.44	8.25	7.23	8.92
Accounting support (N=11)	Mean	46.45	37.27	46.27	41.09
	Median	45.00	36.00	46.00	35.00

	Std.Dev	11.44	10.73	7.50	18.52
Peer mentoring (N=12)	Mean	53.00	42.08	51.08	50.75
	Median	57.50	41.50	52.00	50.00
	Std.Dev	14.28	14.58	11.49	12.64
Control (N=39)	Mean	58.64	42.95	53.49	51.49
	Median	59.00	44.00	53.00	52.00
	Std.Dev	11.19	11.47	8.42	11.27

Source: Self constructed

ANALYSIS OF VARIANCE

ANOVAs were undertaken to assess whether differences in the academic results achieved by the students participating in the three interventions and the control group, were significant or not. The results show (see Table 5) that significant differences were reported in the scores achieved by students for three of the four assessments, namely semester test 1 ($p < 0.05$), the class mark ($p < 0.10$), and the exam mark ($p < 0.10$).

TABLE 5 ANOVA RESULTS

	df	F	Sig
Semester test 1 %	3	3.37	0.02**
Semester test 2 %	3	0.94	0.43
Class mark %	3	2.23	0.09*
Exam mark %	3	2.65	0.0**

$p < 0.10^*$; $p < 0.05^{**}$ Source:
Self constructed

For semester test 1, the post-hoc Tukey HSD test showed that differences in scores were reported between the Accounting support group and the control group, with the Accounting support group scoring a significantly ($p < 0.10$) lower mean score ($\bar{x} = 46.45\%$) than the control group ($\bar{x} = 58.64\%$) (see Table 4). The post-hoc test also showed that the Accounting support group ($\bar{x} = 46.27\%$) achieved a significantly ($p < 0.10$) lower class mark than both the Language support group ($\bar{x} = 53.67\%$) and the control group ($\bar{x} = 53.49\%$). No significant differences in the scores reported for semester test 1 or the class mark were reported between the other two support groups, or between them and the control group.

With regards to the exam scores, the post-hoc Tukey HSD test showed a statistically significant ($p < 0.05$) difference in the scores achieved by the Accounting support group ($\bar{x} = 41.09\%$) and the Language support group ($\bar{x} = 54.13\%$), as well as a statistically significant ($p < 0.10$) difference between the Accounting support group ($\bar{x} = 41.09\%$) and the control group ($\bar{x} = 51.49\%$). In both cases the Accounting support group scored lower exam scores than the other support groups. No significant differences were reported between the other support groups or between them and the control group.

T-TESTS

The ANOVA results above show that some of the intervention groups scored significantly lower than the control group for some of the assessments. To further investigate the success of the interventions and to establish which were more successful, t-tests were undertaken to establish whether the performance of students within the intervention group (all three intervention groups together) and the

control group varied. The profiles of the students participating in the intervention group, and the control group varied. Therefore, to establish whether the three interventions implemented, were successful or not, the progress of students within the intervention groups was compared to the control group. This progress was measured by looking at whether the assessment results of the two groups had changed over the period of the semester, and to compare these changes to each other. The change in the result achieved between semester test 1 and semester test 2 (test difference), and the change between the class mark and the exam mark (class exam difference) was used to establish and compare this progress.

The findings show that a significant difference ($p < 0.10$) is reported in the change between the test marks achieved between the two groups. It is common in first year accounting for marks to decline from semester test 1 to semester test 2 but the findings show that the average mark dropped by

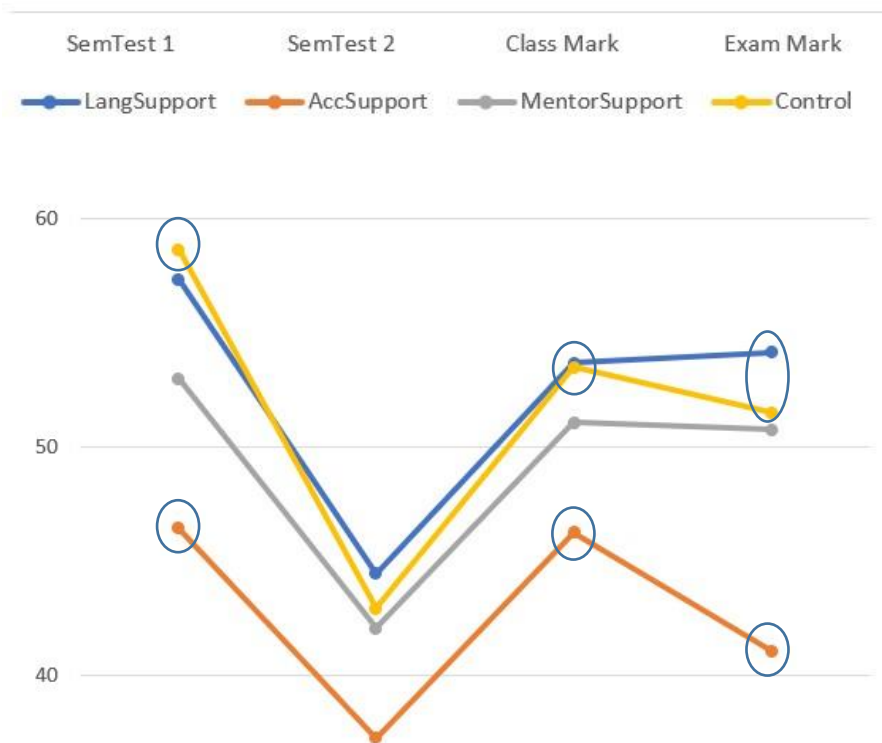
12.5% from semester test 1 to semester test 2 for the intervention group (52.82% to 41.63%) and 16.35% for the control group (58.64% to 42.95%). As such, the decline in marks between semester test 1 and semester test 2 reported by the intervention group was significantly less than the decline in marks reported by the control group. The results show that change in the marks scored between the class and the exam marks does not differ significantly between the two groups.

DISCUSSION

The ANOVA results show that significant differences were reported in the scores achieved by the student sample groups for three of the four assessments, namely semester test 1, the class mark, and the exam mark (see Figure 1). For semester test 1, the Accounting support group reported a significantly lower mean score than the control group. For the class mark the Accounting support group reported a significantly lower mean score than both the Language support group and the control group, with the Language support group reporting the highest score. It is important to note that semester test 1 mark contributes 40 percent to the class mark of the module and thus lower semester test 1 marks contribute to lower class marks. No significant differences were reported between the other two support groups, or between them and the control group for either of the semester tests or the class mark. The findings also show that the Accounting support group scored significantly lower exam scores than both the Language support group and the control group, but not significantly lower than the Peer mentoring group.

A possible explanation for the significantly lower assessment scores reported by the Accounting support group students could be that this group were all students with an African home language, and none had done Matric accounting. In the control group more than half of the students had English as a home language and the vast majority had done Matric accounting. Several studies show that students with English language proficiency (Addow, Abubakar and Abukar, 2013; Steenkamp et al., 2009) and prior accounting knowledge (Joynt and De Villiers, 2019; Papageorgiou, 2019) perform better in first-year accounting at university. As such the Accounting support students were at a disadvantage in comparison to the control group in terms of both language and accounting knowledge. Despite the accounting support received by this group over the semester, their assessment results continued to be significantly lower than the other groups.

FIGURE 1 ASSESSMENT RESULTS



Source: Self constructed

Other factors could also explain the poor performance of the Accounting support group. It was noted that the Accounting support group had more male students than the control group. Several studies (Joubert, Viljoen and Schall, 2013; Wally-Dima and Mbekomiza, 2013) have found that female students perform better in their accounting studies compared to their male counterparts. This suggests that the gender make-up of the Accounting support group could have contributed to their poor performance.

Although the findings of this study report no significant differences in the assessment scores of the Language support group for semester test 1, semester test 2 and class mark, and the other groups (Accounting support, Peer support, control), a significant difference was reported in the exam scores of the Language support group in comparison to the Accounting support group. The Language support group achieved significantly higher exam scores than the Accounting support group. Both the Language support group (93%) and the Accounting support group (100%) were made up of predominantly English second language students. However, 93% of the Language support group had done Matric Accounting, whereas none of the Accounting support group had done Matric Accounting. No significant differences were reported between the Language support group, and both the control group and the Peer mentoring group, for the exam scores. In all three these groups the vast majority had done Matric accounting. Worth noting is that the Language support group scored higher assessment scores than any of the other groups for semester test 2, the class mark, and the exam mark, with an increase between the class mark and the exam mark (see Figure 1). The other support groups and the control group all reported a decrease in scores between the class mark and exam mark. These findings again highlight the importance of having done Matric accounting for success in first-year university accounting and could suggest that the Language support intervention had contributed to these students achieving higher exam scores.

Although only at the 10% confidence level, the findings also show that a significant difference is reported in the change between the semester test 1 and semester test 2 marks achieved between the combined intervention group (all three groups together) and the control group. It is not uncommon that the marks achieved by Accounting 1 students show a decline from semester test 1 to semester test 2. However, of interest is that the decline in marks from semester test 1 to semester test 2 reported by the combined intervention group was significantly less than the decline in marks reported by the control group. In comparison to the control group, the combined intervention group were mostly second language English students and students with no Matric Accounting. Given these demographics of the combined intervention group, one would have expected them to have a larger decline in marks between the first and second semester tests in comparison to the control group. This finding provides some evidence that the interventions implemented were successful for the combined intervention group. However, many factors could account for this difference. For example, several authors (De Jager, 2014; McInnis, 2003) suggest that individual commitment is an important influencer of academic success. Students who enrol for a voluntary intervention are arguably more motivated than those who do not volunteer to attend (Jackson, 2014). The students who participated in the current study volunteered to do so and it is thus possible that these students were more motivated to perform well in their studies than those who did not volunteer (control group).

The findings show that the change in the marks scored between the class marks and the exam marks does not differ significantly between the two groups. This result, despite a far greater percentage of the combined intervention group being second language English and far less having done Matric accounting than the control group, provides some support for the effectiveness of the interventions being implemented during the six months prior to the exam being written. The change in the marks scored between the class marks and the exam marks for the combined intervention group was not established for the individual intervention groups because of their small sample size. However, worth noting is that the Language support group reported an increase of 0.46% between their class mark and exam scores, whereas the Accounting support group reported a 5.18% decrease between these two scores (see Table 4 and Figure 1).

As the group sample was small, no significant differences in any of the assessment scores between the Peer mentoring group and either of the other intervention groups or the control group were reported. The Peer mentoring group did not appear effective even though verbal feedback received from the mentees who participated in the Peer mentoring group was positive. Although not part of this study, the mentees reported in a subsequent study that they found the Peer mentoring to be beneficial and wanted the mentoring sessions to continue into the second semester.

PRACTICAL IMPLICATIONS

The Accounting support group scored significantly lower assessment scores and were all students with an African home language and no Matric accounting. Students who have never been exposed to accounting as a school subject and who have attended non-English schools, are faced with a completely new discipline in the first few months of their first year which uses terms and concepts specific to the field. The findings of this study highlight the importance of having done Matric accounting for success in first-year university accounting. Prospective accounting students should be counselled appropriately at high school and given appropriate module and subject advice, bearing their future career intentions in mind.

Worth noting is that the Language support group scored higher assessment scores than any of the other groups for semester test 2, the class mark, and the exam mark, with an increase between the class mark and the exam mark. This finding lends support to the importance of providing discipline specific language support that is integrated into the accounting curriculum. Accounting lecturers should look at developing a remedial support course for language skills within the first-year accounting programme. This support could be developed through mainstream teaching and should

involve collaboration between both accounting subject specialists and language teachers. Universities should continuously strive to improve their entrance requirements as well as their language policy and language support, so that students with English as a second language are not at a disadvantage while undertaking accounting modules as part of their tertiary studies.

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

Several limitations to this study should be noted. Although numerous interventions can be implemented, only three were selected for this study. These were selected based on empirical support as well as the ability of the researchers to implement them. Furthermore, each student was only allowed to participate in one intervention, whereas several students would have benefited from participating in more than one intervention. The interventions only lasted for six months and the results of formal assessments that were compared between the support and control groups took place during these six months. As such the effectiveness of the interventions was only assessed over the short-term. It is suggested that the intervention groups and the control group be monitored over their entire university education so as to evaluate the longer-term influence of the interventions, as effects may not emerge until the second, third, or even fourth year of study.

A further limitation is that the study took place among at-risk first year accounting students at only one university. The participation rate of students wishing to participate in the intervention was small. Although the initial sample group was high, less than half of the at-risk students volunteered to participate in the interventions. The results of this study should be interpreted considering these small diverse sample groups.

The demographic profiles of the students participating in the three intervention groups and the control group also varied in terms of degree being pursued, gender, home language and having done accounting at school. As such these demographic profiles could explain the differences in assessments results more so than the interventions themselves. To assess the impact of an intervention, a future study should rework the research design, specifically the sampling, to control for this diversity.

CONTRIBUTIONS

Interventions in accounting have been presented for several years at the university where the study has been conducted, but this is the first time that the association between the intervention and academic performance has been evaluated. This study adds to accounting education research, where the evaluation of interventions is not a regular practice. Based on the results from this study, similar interventions can be developed and evaluated.

The current study provides some support for the effectiveness of interventions in the first year of Accounting for students who have never been exposed to accounting as a school subject and who are second language English speaking. Based on these results, improved interventions can be developed and evaluated in other modules and at other universities. Researchers should, however, continue to do more to measure proven practices and to test new intervention ideas that could lead to improving the academic performance of accounting students.

CONCLUSION

The findings of this study provide some evidence that the interventions implemented were successful for certain intervention groups. However, many factors could account for their improved performance. It is unclear whether the improvement is directly related to the intervention or other unknown factors. Heterogeneity in a group complicates evaluation but it also allows for the examination of the

consistency of findings across studies, settings and populations, as a means of assessing the generalisability of the interventions. This study thus provides a starting point for the development of interventions in accounting and the evaluation of the effectiveness of interventions in improving academic performance in accounting.

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ANNEXURE 1 INTERVENTIONS

Intervention	Brief description	Time	Facilitator
Accounting support	- Purpose is to help with first year accounting content in a small class setting giving students individual attention and the ability to feel more at ease about posing questions. - Brief introduction to topics dealt with in previous week's accounting lectures. - Completion of in-class assignments with a "why" versus "how to" emphasis. Purpose is to encourage an understanding versus memorisation approach to learning new content. - Students attempt assignment, then facilitator works through the assignment together with students and students mark their own attempts i.e., self-evaluation. Purpose is to assist students to assess accurately whether they know the content. - Student questions are addressed, and errors are discussed.	One-hour session. Once a week running concurrently with the semester academic programme.	Academic trainee (AT) with postgraduate certificate in the theory of accounting qualification.
Language support	- Purpose is to improve the students' reading skills, their understanding of the module content and ability to interpret accounting exam questions correctly to increase student success. - Teaching and learning of language and language related skills is integrated into the accounting curriculum. - Opportunity is provided for students to identify and summarise unfamiliar terminology from the Accounting prescribed textbook. - Translation of concepts from English to isiXhosa using multilingual accounting glossaries. - Brief discussion in English of an academic skill e.g., taking notes, planning study schedules, time management, use of mind maps. - For active engagement, worksheets on accounting terms are completed in groups or pairs to encourage discussion around meanings to achieve better understanding and cognitive growth.	One-hour session. Once a week running concurrently with the semester academic programme.	Qualified language instructor to students on an extended degree programme
Peer mentoring*	- Purpose is to address issues arising in the context of the first-year accounting module experience. - Mentor initiated first meeting with mentee. - Ideas on what to discuss during mentoring sessions were suggested to mentors weekly by the first-year accounting lecturer. - Regular activities varied among peer mentors but ranged from regular weekly meetings featuring study tips and introduction to campus resources. - Mentors are encouraged to facilitate mentee reflection (self-examination of learning strategies) and discussion on issues of learning with mentees. - Focus of mentors is on assisting mentees to take responsibility for their own learning. - Mentors report back to the first-year lecturer weekly on the outcome of their mentoring sessions.	Half an hour session. Once a week over a semester running concurrently with the semester academic programme.	One mentor to one mentee. Mentor was a second- or third-year accounting programme student trained as a first-year accounting tutor and mentor.

* The suggestions of Fox et al. (2010) were followed in implementing the Peer mentoring intervention: (1) Identify who will be mentored: we used first-year students; (2) Identify who will be the mentors to deliver the support: we used experienced students who were able to share experiences with the mentees; (3) Identify what you want your intervention to achieve: we aimed to aid first year students in their transition to university, and provided specific coursework and exam training, with underpinning social connections and networks; (4) Identify who will deliver the training for the mentors, and how and when this will take place: we delivered the training in conjunction with a generic skills advisor at the chosen South African residential university; (5) Identify who will facilitate the logistics of the mentoring sessions, and who will deal with operational issues as they arise. This role was assigned to a staff member who saw the students on a regular basis through teaching; (6) Review the scheme and gather the views of those involved so that improvements can be made: we surveyed test and exam performance after the intervention.

Dealing with Learned Helplessness in Teaching and Learning in Accounting: A Systematic Literature Review Approach and a Call for Action

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ABSTRACT

Learned Helplessness (LH) is one of the emotional issues in teaching and learning, has been investigated and approved for its prominent place in both basic and higher education for stimulating students' enthusiasm and commitment to learning. However, studies investigating LH in teaching and learning accounting are scarce. Therefore, this study seeks to understand the ways of dealing with LH in teaching and learning accounting. This study represents a Systematic Literature Review (SLR) of existing research published on LH in teaching and learning. Literature was sourced from ScienceGate and ScienceDirect. Only publications with LH in teaching and learning focused were included in this study. A total of 20 papers were included; 61.8% contained LH in teaching and learning in accounting. The review of this study underlines the critical role of accounting educators in providing material and study-related support and redesigning the accounting syllabus design to improve LH in accounting students.

Keywords: Learned Helplessness; Teaching and Learning; Accounting, Basic and Higher education

INTRODUCTION

The concept of Learned Helplessness (LH) has become of great concern for both basic and higher education (He, 2021). Learned helplessness refers to “debilitating outcomes, such as passivity and increased fear, that follow an uncontrollable adverse event, but do not when that event is controllable” (Baratta, Seligman, & Maier, 2023). Accounting students understand the need to develop strong mathematical skills, yet some are disinterested in the educational process (Aguilar, 2021). Their lack of enthusiasm for participating is an example of despondency, which can lead to despair and low morale (Hsu, 2011). Far of failing, being reckless, and avoiding assignments might all lead to failure (Sorrenti, Larcán, Cuzzocrea, & Oliva, 2004). Educators have difficulty understanding the causes of students' failure or lack of tenacity in schoolwork, which impacts students' LH (Gordon & Gordon, 2006).

In every educational process, failure is unavoidable. Nonetheless, it is not failure that brings an end to education, but rather the students' attitude to it, which also shapes their education (Dağgöl, 2018). Attributes are the reasons for an individual's success or failure while completing an assigned task, and common attributes in a classroom setting include effort, intrinsic capability or

intellectual aptitude, tough assignments, educator support, and personalised assistance (Horner & Gaither, 2004). On the other hand, students lack confidence and tenacity in dealing with problems and obstacles. They approach most assignments with destructive conduct, a lack of inspiration, have little confidence in their ability and underlying feelings of failure and inadequacy (Wurm, 2021). These students will rather avoid undertaking tasks or undertake easier ones to avoid setbacks perceived as a reflection of their intrinsic lack of skills. These can all be referred to as characteristics of LH found in students.

To buttress this point further, when students cannot change their attitude to challenging conditions, such as dealing with frustration and repeated failures, as well as a crucial inspiration or self-determination, they become psychologically evasive and have LH (Eldowah & Alnajashi, 2017). They are unable to change or provoke the approach implemented following their failure. As a result, they place no value on their devotion since they think they have no influence over their educational process or academic accomplishment (Dickhäuser et al., 2011). Students are at risk of getting LH when they are trapped in an academic failure cycle and lose sight of their skills (Pasta et al., 2013). Thus, such students have a negative attitude toward academic assignments, stop participating, and acquire negative emotions such as dissatisfaction and tension (Filippello et al., 2018).

LH stems from the persistent belief that the outcome of a challenging situation has nothing to do with a person's behaviour in that situation (Baratta et al., 2023). According to Maier and Seligman (1976), LH is a hypothesis connected to a student's repeated exposure to their ability. The LH attitude can eventually have significant deconstructive repercussions on a student since increased levels of LH cause self-abandonment in students, and the mental pain caused by LH leads to people feeling lost, psychologically vacant, depressed, and ultimately acquiring incorrect perspectives on values and life (Wu & Tu, 2019). Furthermore, when students graduate, these habits and attitudes do not vanish; instead, they continue to affect their lives beyond graduation, affecting their work-life, social life, and psychological well-being (Wurm, 2021). This suggests that students cannot express their views and thoughts in any dilemma.

Carson et al., (2002) linked LPs with educator's practices as one of the aspects that play a significant role in this sector since students who were not overseen by educators were helpless. While stringent teaching practices like mind control can contribute to anxiety and poor psychological well-being, the Self-determination Theory (SDT) claims that care from others, such as parents and teachers, is critical for students' accomplishment (Ryan & Deci, 2017). Likewise, student-teacher interactions are crucial in several areas that may considerably influence a student's development and progress, and self-esteem is more likely to occur when students believe that their educators actively encourage them (Jones & Hensley, 2012; Xie & Derakhshan, 2021). On the other hand, appropriate attention has not been devoted to LH in the academic context, largely owing to educators failing to recognise it as a condition that might lead to severe student concerns, such as depression (Filippello et al., 2018). Staying in this LH situation might make a person less motivated to try new things to deal with negative events and be dominated by dissatisfaction linked to melancholy and stress (Filippello et al., 2018). Catering for students who gradually lose interest in accounting science and become LH was the most challenging and sad component of educators' experiences.

PROBLEM

Students lack actual “grit in problem-solving, coping with failures, and tenacity, and approach most assignments with an “I can’t do that” attitude, a noticeable lack of desire, and deep-seated sentiments of failure and inadequacy. Their attitude harms themselves, and those around them begin to feel the same way about completing tasks and confronting trouble. These habits and attitudes do not vanish when they graduate and continue to affect their lives. LH persists throughout adulthood, influencing employment experiences, social interactions, and mental health. When students believe they have no control over the issue or its result, they give up before even beginning. Due to the failure rate in accounting, accounting educators require tools and resources to adopt ways and strategies in the classroom for overcoming LH behaviours and attitudes, as well as resources for strengthening motivational resilience (Skinner et al., 2020). This study ventures to understand the various ways to deal with LH among accounting students in South Africa through a Systematic Literature Review (SLR)

To address the issue of LH, this study tends to achieve the following:

- To identify all scientific studies on LH in teaching and learning;
- To understand the various ways of dealing with LH in teaching and learning accounting in South Africa.

REVIEW OF LITERATURE

Learned Helplessness

LH may be characterised as a complex arrangement of faulty attributions that have been actualised as key to a cognitive-behavioural model of discontent, and that might also serve to elucidate some psychosocial concerns such as poor academic accomplishment (Schleider et al., 2014). LH is a mental condition characterised by an inward, fixed, and international style of attribution for failures; an outer, erratic, and specific style of attribution for success; a lack of self-confidence in one’s abilities and intellect; interpretation prejudice of occurrences; and deconstructive prediction of achievements (Filippello et al., 2020). It refers to a barrier to accounting science learning that Hall et al., (2008) define as a mental condition that causes students to believe they have lost control of an unfavourable scenario, that their activities are futile, and that they are helpless.

Characteristics of Effective Teaching

There is no general agreement on the concept of ‘effective teaching’ (Devlin & Samarawickrema, 2010) nor a single model of ‘excellent teaching’ (Hinton, 2013). Teaching is multifaceted (Parpala et al., 2010), and students and teachers evaluate ‘what is successful teaching’ differently (Buskist et al., 2002; Simendinger et al., 2009). Prior research has indicated that successful teaching is regarded differently among students depending on their subject of study (Parpala et al., 2010).

This study uses the definition proposed by Simendinger et al., (2009). According to this definition, “...an effective educator is one who has mastered his or her field of expertise to the point where he or she can explain complicated subjects with clarity, giving numerous examples and inviting questions and discourse because a successful educator is interested in developing a satisfying student learning environment” (p. 114).

Regardless of the absence of basic consensus on the definition of effective teaching, scholars in the field have identified several attributes from the viewpoints of students and teachers. For example, Simendinger et al., (2009) identified and assessed 29 features of effective business professors, categorising them as 1) class preparation and design, 2) class delivery, and 3) educator’s traits and personal characteristics. The most significant attribute for students is the educator’s current understanding of the subject matter, whereas the most important feature for educators is being well-prepared.

Likewise, Alfraih and Alanezi (2016) used 28 criteria gathered from different studies to rank the relevance of the attributes of effective accounting educators as seen by accounting students at Kuwait University. Students identified the top five critical characteristics as 1) respect for students, 2) summarising major topics, 3) handwriting clarity, 4) making students feel comfortable asking questions, and 5) being approachable in and out of class.

Different stakeholders’ opinions on a quality issue may not be exclusive to education. The issue is that it makes devising instructional tactics and staff development programmes challenging for educators and academic administrators. As a result, it is critical to conduct research on the subject, particularly in a discipline-specific area such as accounting, to better understand the characteristics that contribute to developing the desired learning approach and improving the quality of students’ learning experiences.

Accounting as a course in South African schools

Accounting was taught on two levels in Grades 10 to 12, Higher Grade and Standard Grade, prior to the promulgation of the Constitution in 1996. These two levels enabled learners with the capacity and understanding to function on a higher cognitive level and who planned to continue studying the subject at the tertiary level to offer the subject at the Higher Grade. Learners who lacked the essential skills or were unlikely to pursue post-secondary education might study the subject on the Standard Grade. Accounting is a profession in the corporate world. Therefore, learners were allowed to select at least one vocationally focused topic, one of which may have been Accounting (Booyse et al., 2011).

The Constitution of the Republic of South Africa (Act 108 of 1996) laid the groundwork for the restructuring of the curriculum in South Africa (Republic of South Africa, 1996). One of the primary goals of the post-1994 education reform in South Africa were to develop employable school leavers and graduates (Booyse et al., 2011). With the introduction of Curriculum 2005 and the Revised National Curriculum Statement (NCS) for Grades R–9 in 2005, financial literacy became

part of one of eight learning areas, namely Economic and Management Sciences (EMS) (Letshwene & du Plessis, 2021). Accounting fundamentals were covered in Grades 8 and 9. Accounting could be chosen as one of seven disciplines in Grades 10 to 12 in the Further Education and Training band. Higher and regular grade alternatives were removed from all subjects (Msomi, Mabusela, & Ntshangase, 2023). The NCS for Grades 10–12 aims to equip all students with a high level of knowledge and abilities. The principle is that all students should be able to study a subject at a high level (Letshwene & du Plessis, 2021).

The teaching and learning of accounting

Teaching is a multifaceted activity that is inextricably linked to human behaviour. It is difficult to define what makes quality instruction. A mechanism must be in place to ensure every student gets a quality education. Access to learning is the common duty of all stakeholders, including the state, officials, teachers, school administration, parents, and the larger school community. Quality teaching is not only about how well the teacher presents the content or teaching skills. It is about the quality of the learning that takes place because of the teaching (Marstens & Prosser, 1998:29; Lu & Shuo, 2010:63). Hirsh (2009:10) argues that good teaching occurs when groups of teachers in a cycle analyse data, determine learning goals based on the analysis, design lessons together using evidence-based strategies, when teachers are supported in improving their teaching methodology, and when they then reflect on how their teamwork and learning have improved the performance of their learners. Accounting teachers should be competent, employ effective teaching techniques, be accountable, be able to make teaching enjoyable, promote and enable independent thought in students, have strong communication skills, be organised, and deliver lessons in an orderly fashion in order to be prepared in dealing with LH among students. (Letshwene & du Plessis, 2021; Msomi et al., 2023).

RESEARCH APPROACH

This study represents an SLR of existing research published concerning LH in teaching and learning. To address the research objective, the study considers literature from 2012 to 2022. The research on LH in teaching and learning in social sciences, business management and accounting, and arts and humanity has advanced significantly. Figure 1 depicts the number of publications on LH in teaching and learning by publication year. It is evident that the popularity of LH in teaching and learning studies has increased since 2012.

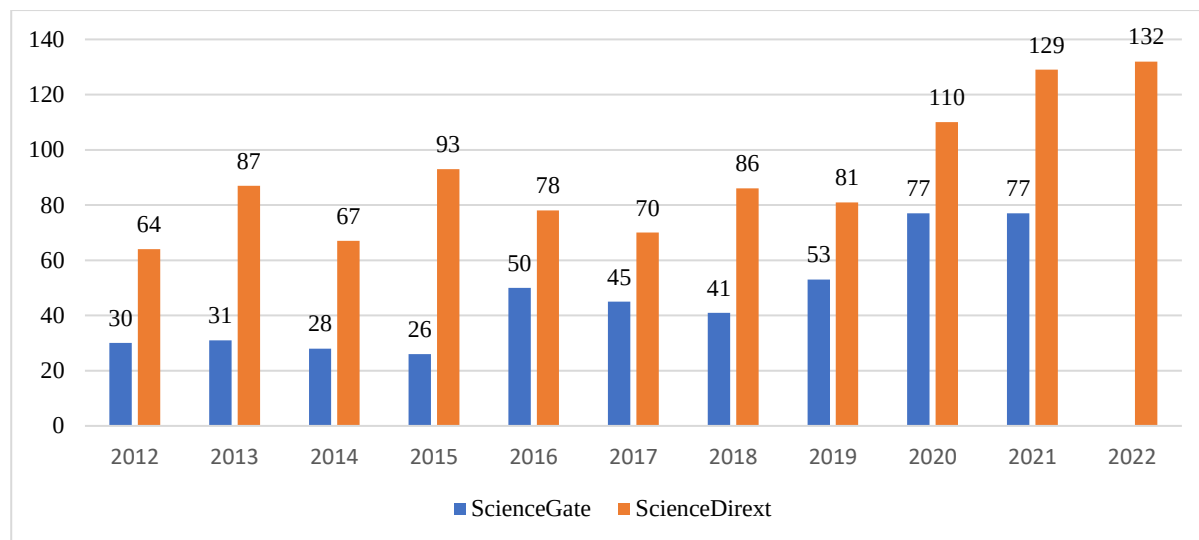


Figure 1: Results of ScienceGate and ScienceDirect, search for “learned helplessness” in the title search for the period 2012–2022 (number of publications)

Source: ScienceGate and ScienceDirect databases

Data sources

The search for articles took place in February 2023. The search was limited to ScienceGate and ScienceDirect. These two databases were considered appropriate as they are international bibliographic databases containing high-rated journals. These databases cover a wide range of publishers and are globally recognised as reputable indexing bodies. This study conducted an SLR in accordance with the PRISMA guidelines of the literature review as a research methodology

The authors began the review process by searching for “learned helplessness” in ScienceGate and ScienceDirect. The same search terms were used for both the two databases. After the preliminary search, an initial pool of 1455 unique contributions were yielded, including peer-review journal articles, proceedings papers, books and book chapters, and other material such as book reviews, encyclopaedia editorial materials and reviews. Table 1 presents the results of the initial search by document type.

Search terms were defined to retrieve academic publications related to LH in teaching and learning. For example, the following keys were used: “learned helplessness,” “learned helplessness in teaching,” “learned helplessness in learning,” “learned helplessness in teaching and learning,” “learned helplessness in teaching and learning in accounting,” and “learned helplessness in accounting education.”

Table 1: Results of the initial search by document type for the period 2012–2022

Document Type	ScienceGate		ScienceDirect		Total	
	No	% of the total	No.	% of the total	No.	% of the total
Peer-review journal articles	317	69.21%	904	90.67%	1221	83.92%
Proceedings papers	10	2.18%	-	-	10	0.69%
Books chapters	88	19.21%	40	4.01%	128	8.80%
Books review	5	1.09%	4	0.40%	9	0.62%
Encyclopaedia	-	-	23	2.31%	23	1.58%
Dataset	33	7.21%	-	-	33	2.27%
Editorial materials	-	-	5	0.50%	5	0.34%
Other material (mini-reviews, news and short communication)	5	1.09%	21	2.11%	26	1.79%
Total	458	100.00%	997	100.00%	1455	100.00%

Source: ScienceGate and ScienceDirect databases

Exclusion and inclusion criteria

For the exclusion criteria, the authors sorted out the documents obtained based on the research objectives, research quality, and exclusion criteria. After a preliminary screening, a total of 234 were excluded. The following document types were excluded from the current literature review:

- Proceedings papers, encyclopaedia and datasets were excluded because they illustrate a trade-off between quality and attainability;
- Book chapters and book reviews were excluded as it is out of the scope of this research to conduct book reviews; and
- Other documents, such as editorial materials, including mini-reviews, news and short communication, were excluded.

The abstracts of the remaining 1 221 peer review journal articles were screened using the inclusion criteria presented in Table 2. Therefore, the final sample contained 34 impactful peer review articles that were free from criticism regarding research quality and after a comparison to ensure that there were no duplications as well as considering only articles that focused on LH in teaching and learning in business management and accounting. Of the 34 articles, 61.8% contain

LH in teaching and learning. Furthermore, Table 3 shows that the top 20 articles on LH in teaching and learning are published in different journals, implying that research on LH in teaching and learning is interdisciplinary.

Table 2: Inclusion criteria for the systematic literature review

Inclusion criteria	Brief description
Subject area	Article focuses on LH in teaching and learning in the subject area of business management and accounting
Language	Articles that are published in English
Empirical study	Article provides a quantitative or qualitative perspective containing primary data that demonstrates the result of LH in teaching and learning
Research objective	Article falls under the research objective of this study
Geographical dimension	Includes all studies that advance new knowledge on LH in teaching and learning irrespective of the country or geographical region

Source: Author's own compilation

Table 3: Top 20 peer review articles on LH in teaching and learning in ascending order

No.	Title of the papers and author(s)	Journal	Themes identified
1	Academic helplessness and life satisfaction in Korean adolescents: The moderated mediation effects of leisure time physical activity – Kim, M., Shin, K., & Park, S. 2023	Healthcare	Material and study-related support
2	Learned helplessness revisited: Biased evaluation of goals and action potential are major risk factors for emotional disturbance – Scherer, K.R. 2022	<i>Cognition and Emotion</i>	Syllabus Redesign
3	Self-efficacy is stronger than social support in predicting technology-enhanced hands-on learning – Wang, D.C., & Huang, Y.M. 2022	Interactive Learning Environments	Syllabus Redesign
4	High school students' reasons for disliking mathematics: The intersection between teacher's role and student's emotions, belief and self-efficacy – Aguilar, J.J. 2021	<i>International Electronic Journal of Mathematics Education</i>	-Syllabus Redesign -Material and study-related support
5	Students' learned helplessness and teachers' care in EFL Classrooms – He, H. 2021	Frontiers in Psychology	-Educators support
6	Effective teaching approaches to combat learned helplessness for students in high school special education – Xie, F., & Derakhshan, A. A conceptual review of positive teacher interpersonal communication behaviours in the instructional context – Wurm, L. 2021	Frontiers in Psychology	-Syllabus Redesign -Material and study-related support
7	A motivational response to the inefficiency of teachers' practices towards students with learned helplessness – Ghasemi, F. 2021	<i>Learning and Motivation</i>	-Syllabus Redesign -Educators support
8	Teaching style and academic achievement: The mediating role of learned helplessness and mastery	Psychology in the Schools	-Educators support

	orientation – Filippello, P., Buzzai, C., Costa, S., Orecchio, S., & Sorrenti, L. 2020		
9	The impact of learning self-efficacy on social support towards learned helplessness in China – Wu, S., & Tu, C.C. 2019	Eurasia Journal of Mathematics, Science and Technology Education	-Syllabus Redesign - Material and study-related support
10	Perceived parental psychological control and school learned helplessness: the role of frustration intolerance as a mediator factor – Filippello, P., Harrington, N., Costa, S., Buzzai, C., & Sorrenti, L. 2018	School Psychology International	-Syllabus Redesign - Material and study-related support
11 1	An examination of Turkish college-level students learned helplessness states in EFL context – Dağgöl, G.D. 2018	Journal of Higher Education and Science	-Syllabus Redesign - Material and study-related support
12	Survey and analysis of college students' learned helplessness in class learning – Jiang, Z.M. 2018	Western Quality Education	Material and study-related support
13	Learned helplessness and socialisation: A reflective analysis – Mohanty, A., Pradhan, R. K., & Jena, L. K. 2015	Psychology	- Material and study-related support
14	The effect of learned helplessness on changing goal orientation among undergraduate students – Ghbari, T.A., Damra, J.K., & Nassar, Y.H. 2014	Journal of Institutional Research in South East Asia.	- Material and study-related support -Educators support
15	Improve social support, reduce learned helplessness—research on the relationship between middle school students' social support and learned helplessness – Li, X.J., & Li, Z.J. 2014	Hebei Education (Moral Education Edition)	-Educators support
16	Learned helplessness and generalisation. In M. Knauff, M. Pauen, N. Sebanz, & I. Wachsmuth, (Eds.). Proceedings of the 35 th Annual Conference of the Cognitive Science Society (pp. 900–905) – Lieder, F., Goodman, N.D., & Huys, Q.J.M. 2013	Cognitive Science Society	-Syllabus Redesign
17	The effect of learned helplessness to the success – Odabasi, B. 2013	International Journal of Academic Research	-Syllabus Redesign
18	Investigation of the level of prospective teachers' learned helplessness in mathematics in relation of various variables – Biber, M., & Biber, S.K. 2013	Social and Behavioral Sciences	-Educators support
19	Interpreting the phenomenon of “learned helplessness” in vocational students: Psychological crux and educational strategies – Cui, J.G. 2013	Chinese Vocational and Technical Education	- Material and study-related support -Educators support
20	To analyse the influence of bad parent-child relationship on higher vocational group with learned helpless – thoughts based on two cases – Gu, L.L. 2013	Journal of Xingtai Polytechnic College	-Material and study-related support

Source: Author's own compilation

FINDINGS AND DISCUSSIONS

LH is a psychological construct intertwined with many other ideas; all demonstrated to students through teaching. The literature review reveals numerous ways for teachers to assist their students in reaching their full potential. As a result, this review can contribute to the literature by confirming the educator's key role in caring about the achievement of LH students. Drawing the findings to the teaching and learning of accounting, the overall empirical literature on LH in teaching and learning can be divided into three broad categories, namely material and study-related support, educators support, and syllables redesigning.

Material and study-related support

Students with LH may lack motivation, have low self-esteem, struggle with problem-solving, avoid challenges, and be disengaged in the classroom (Dong, Jia & Fei, 2023; Braunwell, 2016). The majority of the literature cited material and study-related support as an effective way of dealing with LH in teaching and learning (Dağgöl, 2018; Gu, 2014; Ghasemi, 2021; Jiang, 2018; Lieder et al., 2013; Mohanty et al., 2015; Odabasi, 2013; Polo & Oima, 2013; Ngwenya & Maistry, 2012; Wygal et al., 2014). Some material-related support includes visual aids, movies and stories. In contrast, study-related support includes regular practice and study, independent study, study for a long time, effort persistence study and effective teaching.

Accounting educators should spend more time developing caring behaviours that boost self-efficacy, encourage classroom discussion and interaction, and reduce or even prevent LH. To avoid creating an environment that promotes competition, students with LH should not be compared to other students. Students' academic experiences shape their perceptions, beliefs, and opinions about accounting as well as whether or not they like it and how much they like it (Aguilar, 2021). One method for motivating helpless students to challenge themselves are recommended for use in the classroom. As a result, the syllabus designers' content should be motivating enough to pique their interest.

Educators support

Educators need to know the students' strength and weaknesses that affects their academic performance, then use this as a building block. A previous study by He (2021) reveals similar findings indicating that educators' care and emotional comfort, such as reception and kindness to student demand, can prevent students from developing destructive interpersonal outcomes. Students have always considered accounting a difficult subject; thus, it is important for educators in high schools and universities to curb LH among accounting students. This can be done by observing each student's capabilities and providing support to the student at all times. By focusing on the student's strength, social ties are created between the educator and student in which the student feels appreciated and encouraged, leading to motivation and positive accomplishment. Brinton (2016) reports a positive relationship between caring, attachment, emotion, and inspiration when LH arises. It was found that educators' care is an essential component that can contribute to a learner's growth in a safe and viable educator-learner relationship.

To buttress this point further, students might become academic failures through the conditioning process based on negative feedback from educators, school experiences, peers and students themselves when LH occurs. The SLR reveals that educators should not downplay a student's weaknesses; instead, they should deal with them tactfully to foster effective teaching and learning (Ghbari, Damra & Nassar, 2014).

Syllabus redesign

Accounting is one university subject where LH is mostly observed (Wurm, 2021). Some studies (Biber & Biber, 2013; Filippello et al., 2018; Wu & Tu, 2019) found that LH had a significant impact on student's performance. The literature reveals that LH caused by failure or negative events can result in decreased motivation and an increased risk of depression (Scherer, 2022). Other studies found that LH in learning accounting can be caused by several factors, including a lack of feedback, control, autonomy, rewards, and social support (Filippello et al., 2020; Kim et al., 2023; Jones & Hensley, 2012; Wu & Tu, 2019; Wurm, 2021; Xie & Derakhshan, 2021).

In this study, it was discovered that learning self-efficacy had a negative effect on LH and that social support has a positive effect on LH in students (Ghasemi, 2021; Ghbari et al., 2014; Cui, 2013; Li & Li, 2014; Jiang, 2018; Wu & Tu, 2019). Classroom educators in schools and accounting educators at university play a critical role in determining whether students exhibit LH toward accounting. Therefore, accounting education should redesign the accounting syllabus to include aspects such as goal restructuring, assessing the ability of students to overcome LH, a positive feedback system, self-esteem programmes, and a success-guarantee approach. These approaches will be helpful for all students, particularly those who have shown a tendency to accept failure.

IMPLICATIONS AND CALL FOR ACTION

The purpose of this study was to understand the various ways to deal with LH among accounting students through a Systematic Literature Review (SLR). From the SLR, it has become evident that there are many ways to deal with LH among accounting students to reach their highest potential. Although students learn different behaviours and attitudes throughout their education, there are diverse methods that educators can apply to help students reduce LH and build resilience (He, 2021). The implication of this SLR is that it adds to the existing body of knowledge by confirming the central functions of accounting educators in dealing with LH accounting students' accomplishments.

Course leaders may benefit from the findings by identifying their student's goals and the factors influencing them. The findings send a message to course leaders that they should not expose their students to failure experiences because they may teach them helplessness; instead, they should encourage them to achieve high levels of success. Students may benefit from the findings by identifying the properties of mastery goals, understanding the relationship between goal orientations and LH, and understanding that exposure to failure experiences may drive them to adopt performance goals.

The fact that this study only considers ScienceGate and ScienceDirect indexed articles may be a limitation, and the findings may differ if all studies are considered. However, empirical observation of accounting students dealing with LH in primary or higher education classrooms will provide a wide range of findings. Furthermore, because of the lack of references when it comes to accounting specifically, the link between accounting as a subject and LH is very weak. Future research should be written about only LH and any other subject.

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An assessment of tax compliance among Small, Medium and Micro Enterprises in South Africa

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ABSTRACT

Small, Medium and Micro Enterprises (SMMEs) are significant pillars for sustaining the economies of most countries. Every SMME, regardless of form, size or sector, is largely required to comply with legislation, including tax laws. However, most SMMEs consider tax-related challenges to be the most onerous. This study seeks to assess tax compliance costs among SMMEs in South Africa. This study employed a systematic qualitative review of relevant literature to gain insight into the different challenges and costs incurred by SMMEs in complying with tax authority requirements. Results show that the cost of complying with taxation is a significant barrier to the development and growth of SMMEs when compared to large enterprises. Other challenges cited include a lack of tax knowledge, non-registration, low earnings and high tax rates. The study recommended that when framing tax policies, the South African government should consider the various factors affecting tax noncompliance, especially among SMMEs.

Keywords: compliance costs; noncompliance; regulatory tax burden; SMMEs; tax compliance burden; tax compliance.

INTRODUCTION

Small, Medium and Micro Enterprises (SMMEs) are important pillars for sustaining the economies of most nations (Ravšelj, Kovač and Aristovnik, 2019). In South Africa, SMMEs account for approximately 67% of employment, 91% of formal business, and over a third of the national GDP (Etim and Daramola, 2020; Olla, 2016; The Small Enterprise Development Agency [SEDA], 2021). However, compared to large enterprises, SMMEs face a number of challenges, which have culminated in poor performance, low profitability, and a high failure rate (Mhlongo and Daya, 2023). Compliance with tax rules and laws is one of the major burdens for SMMEs in South Africa. The main burden is that regardless of sector, size and form, every SMME is required to comply with tax legislation (Ravšelj and Aristovnik, 2018).

Taxation is a compulsory extraction of money by a public authority for public purposes, enforceable by law, and not a payment for services rendered (Ramfol, 2019). Taxation plays an important role in the development and growth of every economy (Tee, Boadi and Opoku, 2016). The cost of compliance with taxation is identified as a pivotal inhibitor of the development of SMMEs. Tax noncompliance is when the taxpayer does not comply with or adhere to the tax authority's tax regulations and rules (Mohamad and Deris, 2018). Mohamad and Deris (2018) further argue that the increasing tax noncompliance among SMMEs has negatively affected the amount of tax revenue accruing to many government institutions. In South Africa, these burdens are further exacerbated due to subjective evidence that tax compliance costs have prevented most SMMEs

from registering their businesses with the Companies and Intellectual Property Commission (CIPC), the South African Revenue Service (SARS) and other regulatory bodies (Ndlovu, 2015:1). For these reasons, SMMEs that are not registered for tax purposes are not regarded as organised entities, and it is difficult for such entities to obtain contracts from the government or get services from the municipalities.

SMMEs have to comply with various taxes, imposing a massive burden on the owners in terms of finance, administration, paperwork, and time (Mahadea and Pillay, 2008). Some of these taxes include the Value Added Tax (VAT), income tax, the Unemployment Insurance Fund (UIF), and the Skills Development Levy (SDL). Klins (2014) suggests that to promote SMMEs, creating a stable tax regime is the best initiative for the development of tax-compliant SMMEs.

Like in many countries globally, SMMEs play a vital role in South Africa in raising revenue for the state (Inasius, 2019). However, SMMEs contribute lower tax revenue than large corporate enterprises, as a result they do not pay the required tax due to high tax compliance costs and regulatory burden (Susila and Pope, 2012). Although the South African National Treasury is implementing various strategies to create a tax-friendly environment for SMMEs, tax compliance is still a significant burden, hindering the sustainability of many SMMEs (Ndlovu, 2015).

Tax noncompliance is a significant concern among governments worldwide, and South Africa is not an exception. Although the South African government has undertaken various fiscal measures to increase tax compliance, the country still experiences a considerable increase in the fiscal deficit that can be traced back to the increase in non-compliant tax payments, especially among SMMEs.

Objective of the study

A substantial amount of literature on the complexity of tax laws and tax compliance costs has mainly focused on the simplification of tax laws; causes of complexity in these tax laws; the measurement of the complexity of tax laws; the impact of such complexity on tax compliance costs; and the estimation of tax compliance costs (Alshira'h, Alsqour, Lutfi, Alsyounf and Alshirah, 2020; Evans, Lignier and Tran-Nam, 2013; Mahangila, 2017:57). However, limited studies focus on assessing tax compliance costs among SMMEs, especially in developing nations such as South Africa. To fill this research gap, this article contributes to the body of knowledge by assessing the tax compliance costs among SMMEs in South Africa.

The objective of this study is to assess the tax compliance among Small, Medium and Micro Enterprises in South Africa

LITERATURE REVIEW

This section reviewed literature relating to tax compliance, tax compliance cost, tax compliance burden, tax administration burden and the theoretical framework for this study.

Tax compliance

In most third world countries, tax noncompliance affects the administration of income tax, as well as impeding tax revenue performance (Wadesango, Mutema, Mhaka and Wadesango, 2018). Complying with tax regulations and laws is seen as time-consuming, with high regulatory costs and burdens that negatively affect the growth of SMMEs in South Africa (Junpath, Kharwa and Stainbank, 2016). For most SMMEs to remain viable as enterprises, a significant portion of their resources are directly allocated to ensuring tax compliance (Batrancea, Nichita and Batrancea, 2012; Naicker and Rajaram, 2018). This problem has diminished the business abilities of SMMEs

to expand their operations, and has forced most SMMEs to operate largely through tax evasion and avoidance (Naicker and Rajaram, 2018). It was evident in the case between 'Miller v CIR and McDougall v CIR', whereby Baragwanath emphasised that in the end, avoidance and evasion will be decided by the Commissioner, the Tax Review Authority, and ultimately the court (Kumarasingam, 2010). Coolidge (2012) states that "the burden of tax compliance, which includes the time and cost relating to preparing tax returns, filling out, effecting payments, and interacting with tax authorities, is heavier than the tax payments themselves."

In South Africa, the failure rate of SMMEs is alarming, with the majority of them not developing into well-established organisations. One of the main reasons for the high failure rate is the excessive compliance costs and prohibitive regulations on SMMEs (Naicker and Rajaram, 2018). At the same time, research shows that tax compliance costs in Western countries are lower compared to the levels in developing countries. The World Bank Group reported that SMMEs in developing countries incur an average tax compliance cost of 15% of turnover every year (Coolidge, 2012). Recent statistics in South Africa show that the cost of tax compliance for SMMEs with an annual turnover of ZAR 1 million is almost 3% of the turnover, compared to 0.1 to 0.5% larger enterprises with an annual turnover of ZAR 1 billion and the resources to engage tax consultants (Matarirano, Chiloane-Tsoka and Makina, 2019). Mahangila (2017) argues that tax compliance cost is the main reason for the high tax noncompliance cases among SMMEs.

Tax compliance cost

Tax compliance cost is the costs incurred by taxpayers and third parties in meeting the requirements laid upon them in order to comply with a given structure and level of tax (Eichfelder and Vaillancourt, 2014). The European Commission (2013) highlighted that there are many different areas of tax compliance. Furthermore, the compliance activities differ, and these extend beyond preparing and filing the tax returns. The European Commission (2013) defines tax compliance costs as 'all the costs borne by businesses and individuals to comply with tax regulation, excluding the costs of taxes themselves'. Tax compliance costs are those incurred by taxpayers to comply with their tax obligations without taking the actual tax liability into account. Stark and Smulders (2018) put it that tax compliance costs would not exist if the tax system were abolished. Matarirano et al. (2019) argue that one of the main reasons for the poor performance and failure of SMMEs in South Africa is taxation costs. Herrington and Kew (2016) concur that the costs associated with complying with taxation consistently appear to be significant burdens to SMMEs.

A review of empirical findings on tax compliance costs by Eichfelder and Vaillancourt (2014) found that tax compliance costs are high among SMMEs, and they submit that this is a global problem facing many countries. Eichfelder and Vaillancourt (2014) further show that these compliance costs are regressive, implying that the costs greatly impact SMMEs than large businesses. Therefore, researchers show that tax compliance costs are a considerable burden for SMMEs (Eichfelder and Hechtner, 2016). A study conducted in South Africa by Matarirano *et al.* (2019) reveals that business size, age, method of settling tax obligations, and qualifications of the tax preparer drive tax compliance costs of small businesses.

Tax compliance costs have been widely discussed in the economic and public finance literature due to its negative consequences on efficiency and taxation equity (Eichfelder and Vaillancourt, 2014). From an efficiency perspective, Eichfelder and Vaillancourt (2014) argued that costly compliance activities are a waste of economic resources, as they increase the effective tax burden borne by SMMEs without raising revenue to the state. From the equity point of view, complicated tax rules may result in too high compliance costs. Jansen et al. (2020:1) contended that in

addressing the tax-related regulatory on SMMEs, the state must first take an essential step in addressing noncompliance and the magnitude of tax evasion and avoidance activities.

Tax compliance burden

The tax compliance burden is defined as "the time and cost associated with preparing tax returns, filing, effecting payment and interacting with the tax authorities, while tax compliance cost includes preparing, handling and submitting a required tax return to the country's tax authorities" (Ahmad et al, 2017). Matarirano *et al.* (2019) argue that tax compliance costs are regressive in nature and impose a heavy burden on performance and sustainability of small businesses. Coolidge (2012) found that the burden of tax compliance is heavier than the number of tax payments themselves. Tax compliance costs are one of the factors behind poor performance and failure, as often cited by small businesses (Matarirano *et al.*, 2019:1). Although some countries have introduced significant tax relief and incentives, this has not been sufficient, as SMMEs are still overburdened. Rametse (2010) found that the Australian Bureau of Statistics raised the concern that compliance with government regulations had impacted SMMEs, resulting in them having to bear a disproportionate burden of compliance cost in relation to their size. She also emphasises that it is usually smaller enterprises that endure higher compliance costs due to their limited capacity and resources (Rametse, 2010).

Countries such as Finland, Romania, and France are known for their dedication towards uplifting SMMEs by implementing tax programmes and policies that decrease SMMEs' tax regulatory cost and give them a chance to grow and succeed compared to well-established larger enterprises (Impact Trust, 2012). A study in Zimbabwe by Nyamwanza, Mavhiki, Mapetere and Nyamwanza (2014) established that SMMEs in most developing countries, including South Africa, do not comply with tax, as most do not believe in the tax system and considered tax rates to be too high, thus significantly affecting their business. Nyamwanza et al. (2014) further found that SMMEs considered compliance with tax as burdensome as the process of complying with all taxes is unnecessarily time-consuming. Complying with tax was also seen as very costly as most SMMEs do not have accountants as employees who would assist with the tax compliance, and hence they depend heavily on tax practitioners who charge high fees.

Tax administrative burden

Tax administrative burden refers to a tax-related arises from administrative obligations that SMMEs must comply with due to legislation (Ravšelj et al., 2019). A tax administrative burden can also arise as a result of the complexity of the tax system. Block (2016) contends that the administrative burden represents the operating cost independent of profitability of the business. James and Alley (2002) state that tax compliance is the willingness of taxpayers or enterprises to act per tax legislation without the use of coercive measures. Ravšelj et al., 2019) remark that to fulfil the tax compliance obligations, SMMEs are required to report on the correct tax base, correct computation of tax liabilities, and timely filing of tax returns as well as timely payment of the amount due to the tax authority.

Wadesango *et al* (2018) identify tax compliance as a serious problem for many tax authorities. This is because it is a burdensome undertaking to influence taxpayers to comply with tax requirements (James and Alley, 2014). Literature has established that the administrative tax burden resulting from existing tax legislation generally leads to a decrease in productivity and negative growth of SMMEs (Ropret *et al.*, 2018; Slabe-Erker and Klun, 2012). SARS has also introduced administrative noncompliance penalties for noncompliance corporate (including SMMEs) whose tax return is long outstanding. This noncompliance penalty has a potentially adverse impact on several SMMEs as SARS, in collaboration with the CIPC, can obtain a list of non-compliant SMMEs quickly (Deloitte, 2019). Prior research shows that tax compliance burden

is a worrisome development (Coolidge *et al.*, 2009:4; Guyton *et al.*, 2003:676). Smulders *et al.* (2016) define tax compliance burden as “the amount of time, and financial resources (compliance cost) spent to comply with the tax.”

Theoretical model

Two theoretical approaches can be used to understand taxpayers' compliance, namely the economic and behavioural (non-economic) approaches. The economic approach to tax compliance is grounded on economic reality, whereby participants are required to act rationally when making economic decisions (Yulianto, Rosalia, Atika, and Alamsyah, 2019). The economic approach regards the taxpayer as an ethical individual, avoids risk and tries to make the best utility of resources. The economic approach postulates that taxpayer compliance is influenced by various elements of the taxation system. These elements include tax sanctions, tax audits, and tax structure compliance (Yulianto et al., 2019).

In contrast, the behavioural approach views the taxpayer as agents who maximise utility and social creatures who must deal with several beliefs and interact with social norms (Yulianto et al., 2019). Inasius (2019) concurs that the behavioural approach combines sociological and psychological factors. Behavioural factors that influence tax compliance include tax mentality, justice, moral values and subjective norms (Almohtaseb, Matahen and Sahkkour, 2021).

The current study was grounded on the economic approach and therefore builds on the work of Becker (1968). The economic approach model perceives the non-compliant taxpayer as an individual who chooses to evade taxes whenever the expected compliance gain exceeds the compliance cost. The economic framework postulates that the tax rate, the possibility of being audited, and the penalty rate determine the monetary cost of tax compliance (Fischer, Wartick and Mark, 1992). In this sense, compliance cost is considered an economic problem for society.

SMMEs are rational actors who seek to maximise the utility of their taxable income by weighing the benefits and the cost of compliance with the utility of tax noncompliance (Horodnic, 2018). Taxpayers will be noncompliant when the expected penalty and probability of being caught are rather small compared to the utility gained by noncompliance (Horodnic, 2018).

RESEARCH METHOD

A qualitative archival research method, with an extensive literature review as the data collection method was adopted in this study. Cropley (2019) observe that the advantage of qualitative research is to gain an in-depth understanding into the constructions of reality and the nature of the universe as it is experienced, structured and interpreted by humans in the course of their everyday lives. The archive research method includes a broad range of activities applied to facilitate the investigation of documents and textual materials produced by and about organisations (Ventresca and Mohr, 2001). In other words, archival methods involve utilising historical documents to gather arguments and contrasts as well as evolving information under that particular study. A comprehensive literature review was conducted, including the following sources: court cases, legislation, government publications, journals, books, and electronic resources.

DISCUSSION

This study contributes to the knowledge that various stakeholders may have regarding tax compliance issues and its significance to the economy. These stakeholders include the tax authority, government, policymakers, and SMMEs (Alshira'h et al., 2020). In most emergence economies, SMMEs are critical sources of innovation and flexibility, as they contribute to the creation of scarce employment opportunities (Tee et al., 2016). Hence, the tax system's alignment to a tax-friendly environment for SMMEs is considered an essential agenda for policymakers, given the vital role that SMMEs play in South Africa's economy.

These findings are crucial for SARS and other tax authorities whose mandate is to increase tax compliance levels and productivity of SMMEs for them to thrive. Consequently, tax authorities should consider the effect of tax compliance costs when introducing new taxes and law.

This study outlines guidelines for tax authorities such as SARS and CIPC further in their efforts to address the tax compliance cost burden for SMMEs. There is a need to initiate more research to assess whether the initiatives that are already introduced by SARS, CIPC through the Department of Trade and Industry (DTI) and other regulatory bodies have been successful, efficient, and useful, or not. It is further recommended that future research assess each initiative rather than a blanket approach to bring direct and insightful results. This method should help identify any areas requiring remodelling and adjustment. Additionally, more research needs to be conducted on each new SARS initiative before the implementation stage to ensure that it achieves its intended objectives and, most importantly, ensure that it does not result in unintended compliance cost burdens for SMMEs.

SMMEs have received increasing attention following the launch of a tax awareness campaign by SARS (Gcabo and Robinson, 2007). This study found that unlike other developing countries, South Africa has a tax-paying culture. This study clarifies that the main forces of tax compliance cost among SMMEs are non-integration between government departments, tax administration by SARS, current tax legislation, SMME level inefficiencies and tax practitioner costs.

Literature shows that tax compliance costs can be high and regressive, but the relationship between tax compliance and compliance behaviour is not clear. It was found that tax noncompliance among SMMEs can either be attributed to failure to submit a tax return within the stipulated period or no submission, overstatement of deductions, failure to pay assessed taxes by the due date, or an outright failure to pay levied taxes.

According to Ravelj *et al.* (2019), SMMEs often face various challenges, whereby tax-related challenges are perceived to be significantly burdensome that affect their business operations and entrepreneurial activities. Peprah *et al.* (2020:2) found that factors such as lack of tax education, non-registration, low incomes, high tax rates, and high consumption are significant impediments to compliance with income tax administration.

In South Africa, SMMEs are treated as the sector of highest priority because they play a critical role in contributing to the country's target rate of economic growth, development, and job creation. The 2018 Tax Statistics report in South Africa shows that of the 768 687 (714 422 in 2017) companies that were assessed for tax, 143 768 (129 867 in 2017) companies assessed were small business corporations that paid tax at the preferential graduated income tax rate, instead of the fixed corporate tax rate of 28% (Deloitte, 2019:1).

These figures indicate that an increasing number of SMMEs use the preferential tax regime available to them. However, despite this progress, taxpayer education and the cost of tax compliance remains a significant challenge for SMMEs, as they often simply do not have the necessary staff, resources, and skills to timely and fully comply with all their tax obligations (Deloitte, 2019). The cost of tax compliance can add significantly to the cost of doing business for SMMEs. For example, additional resources that have to be employed to comply with tax rules, especially the significant penalties imposed for noncompliance with tax rules.

The taxation for SMMEs faces various significant policy challenges, with the compliance cost of taxation standing out as the most burdensome (Weichenrieder, 2007). Empirical evidence

demonstrates that when scaled by turnover or assets, the compliance costs for SMMEs are higher than those of larger companies.

One of the objectives of the Tax Administration Act No. 28 of 2011 is to provide for the imposition and remittance of administrative noncompliance penalties (Republic of South Africa, 2012). Doran (2009) suggested that imposing a penalty promotes tax compliance, a fact that this study endorses.

CONCLUSION AND RECOMMENDATIONS

This study established and verified that the South African tax authority has attempted to address the tax compliance costs and burdens identified and the recommendations made in the tax compliance cost studies reviewed. For the past few years, South Africa has achieved some steady success in broadening its tax base among SMMEs. Various legislative measures were enacted to provide preferential tax treatment to SMMEs (Deloitte, 2019).

The South African tax authority addressed the following recommendations over the years concerning reducing the tax compliance burden on SMMEs.

- The absence of software to aid SMMEs with their record keeping. However, the role of SARS in this task is, however, debatable;
- The complexity of the language used in the tax laws to accommodate different business leaders to comprehend the requirements of SARS in their mother tongue with no fewer language barriers – only isiZulu, Sesotho, Afrikaans, Sepedi and Xitsonga are currently used on the SARS desktop which then excludes isiXhosa, isiNdebele, Tshivenda, Setswana and siSwati
- The tax compliance burden associated with the provisional or interim tax filing to reduce the high volume of administration for final tax assessment.

Based on the literature reviewed, the following recommendations regarding the tax compliance costs and burdens are not yet addressed by the South African tax authority and other tax regulatory bodies.

- rules or laws that establish a specific threshold value or amount at which SMMEs are not required to submit tax returns;
- The in-depth tax-related matters and rates in the South Africa school syllabus especially those related to SMMEs (particularly in grades 7 to 12);
- The wavering of penalties for first-time tax compliance offenders; and
- The request for SARS to reduce the interest and penalty rate for SMMEs.

SARS should organise regular tax education and awareness sessions for SMMEs to educate them on tax incentives, tax exemptions, the general importance of paying tax and tax revenue utilisation.

The study found that SARS has levels of inefficiency and tax administration challenges that have called for various measures to address the associated compliance cost constraints. Some of these measures include providing tools explicitly designed for SMMEs and providing educational materials on tax-related matters.

Considering the tax compliance burden on SMMEs and the contribution SMMEs make to the South African economy, it is recommended that SARS should encourage non-compliant SMMEs to regularise their affairs by encouraging voluntary disclosure applications for a limited timeframe before it imposes noncompliance penalties.

In terms of VAT compliance, this is the most time-consuming component for an SMME to comply. In this regard, this study recommends that South African tax authorities consider tax reform to reduce the cost of tax compliance for SMMEs. This study established that the SARS helpdesk does not currently address the needs of the SMME sector with respect to VAT compliance (SAIPA, 2014:9). This study recommends that strict time limits be placed on SARS and that a separate helpdesk be designed to deal with VAT compliance. Furthermore, this study recommends that VAT compliance cost can be addressed in the following ways through the use of differentiated tax policies:

- Reducing the number of VAT returns per year required of SMMEs; and
- Raising the compulsory threshold and providing a small-retailer package.

Ramfol (2019) found that the individual taxpayer's morals influence tax compliance decisions. The South African government should increase its level of commitment to tax incentives that benefit SMMEs. It could include reducing the tax compliance burden for these enterprises, simplified tax laws, granting tax incentives, and easier access to finance. To create a friendly business environment for SMMEs, the government must ensure clear, transparent, unambiguous, and stable tax legislation. DTI is in the process of fully implementing the recommendation of the South African government's integrated strategy that aims to promote entrepreneurship and small businesses in the country with less red tape and stringent legal requirements, including tax matters (DTI, 2022).

Given that SMMEs are usually regarded as an essential catalyst for economic growth, the cost of tax compliance may slow the economy. In this regard, this study recommends that government should simplify tax administration for SMMEs.

The literature on cost burden caused by tax compliance was analysed and the following findings were derived. The initial challenge behind tax compliance costs among SMMEs is non-integration between government departments, ineffective tax administration by the South African Revenue Service, current complex and ever-changing tax legislation, SMMEs level of inefficiency and tax practitioner costs.

As a cost driver of compliance cost, tax practitioner costs result from the South African tax legislation's complexity, characterised by many taxes and constant tax legislation changes. In contrast, SMME owners and staff do not have sufficient and adequate skills in terms of tax-related matters, lack of capacity, and resources to attend to the tax matters. Hence, they find it convenient to use a tax practitioner's services rather than to do the tax administration in-house, although it costs the company money that some do not even have.

CONTRIBUTION OF THE STUDY

South Africa experiences a high unemployment rate, sluggish economic growth, and strives to reduce poverty. Creating a tax-friendly environment for SMMEs would encourage entrepreneurship that could contribute positively to alleviate these challenges. These study's results are unique because they could open up other theoretical perspectives in the form of explanations for tax compliance cost and burden. This study contributes to the existing literature and theoretical understanding of the tax compliance cost and regulatory burdens affecting the growth of SMMEs in South Africa compared to the mechanism used in other countries. Furthermore, this study extends new horizons in the body of knowledge by making suggestions on further interventions and possible strategies that could be used by the legislative authorities to mitigate tax compliance cost for SMMEs. This study contributes to epistemic resources that could

add to SARS to understand what factors increase the tax compliance cost of SMMEs and might also assist in managing the compliance behaviour of SMMEs in South Africa.

LIMITATIONS OF THE STUDY

SMMEs in the mining and exploration sector and farming enterprises were excluded in this study. This is due to the fact that SMMEs in these sectors are subject to specific tax policies. SMMEs classified as a trust are also excluded from this study due to the complexity surrounding trust's tax compliance.

There are limited studies in South Africa on tax compliance costs on SMMEs and the burdens SMMEs carry on tax compliance matters. Due to the role that SMMEs play in the economic development of the country, the following avenues should be prioritised for future studies.

- Interviews with SMMEs owners, before, during, and after-tax season to capture and demonstrate their behaviours and practices, including VAT, UIF, SDL and corporate tax registration.
- Examine SARS officials' abilities to guide SMMEs adhering to tax compliance requirements.

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An exploratory study on the challenges faced by South African Municipalities in implementing the Municipal Standard Chart of Accounts: A Case of the City of Tshwane

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ABSTRACT

This study explored the challenges faced by municipalities in South Africa in the implementation of the Municipal Standard Chart of Accounts (mSCOA). The study adopted a qualitative approach, following an interpretive ontology, and a purposive sampling technique was used. The City of Tshwane in Gauteng Province was used as a unit of analysis; primary data was collected using virtual interviews as well as open-ended questionnaires, and secondary data was obtained in various documents on mSCOA implementation. The study revealed that there is a low mSCOA implementation level in the City of Tshwane. Furthermore, the study found that numerous challenges influenced the low implementation level. These challenges include resistance to change, a lack of adequate training on mSCOA implementation, a lack of personnel, a lack of pre-consultations, and poor system vendor skills transfer. The study recommends involving implementers in the concept and inception phases of any new reform.

Key words: Municipalities; Municipal Standard Chart of Accounts; mSCOA; Implementation; South Africa

INTRODUCTION

Sound financial management is an essential component for the public sector as it may facilitate an accurate and comprehensive assessment of the effects of policy decisions and further enhance internal decisions on planning, monitoring, and accountability (Gcora & Chigona, 2019). Various scholars have cited that Integrated Financial Management Information Systems (IFMIS) have been discovered to be a crucial tool for fostering growth and development by ensuring that the government mobilizes state revenue, effectively monitors and safeguards public funds, and aims to enhance quality service delivery to the public (Harelimana, 2017; Gcora & Chigona, 2019). In a drive to modernize and enhance public financial management, governments in emerging economies are progressively reconnoitring various systems and frameworks (Micheni 2017). Due to the absence of reliable and timely information for decision-making in all government departments, the government of the Republic of South Africa introduced IFMIS as a tool wherein financial management can be enhanced (National Treasury, 2018). In 2004, the National Treasury of South Africa established a new standardized chart of accounts and a new economic reporting format for national and provincial government departments (National Treasury, 2018).

However, despite the reforms brought by the Department of National Treasury, municipalities were still characterised by poor data quality that was not credible and flaws in the financial information management, as evidenced by the 2015 Auditor General of South Africa report, which revealed that 84% of the financial statements of municipalities were poorly prepared and presented (AGSA Consolidated Report, 2015–16). Furthermore, the AGSA report also revealed that irregular, unnecessary, and wasteful expenditures in local government are on the rise due to financial mismanagement (AGSA Consolidated Report, 2016–17). In 2014, the National Treasury commissioned the Municipal Regulations on a Standard Chart of Accounts (mSCOA), requiring all municipalities to adopt and integrate their IFMIS (National Treasury, 2017). In that regard, all South African municipalities are mandated to operate in accordance with the guidelines established in the mSCOA (National Treasury 2018). Nevertheless, there seems to be a low level of adoption of the mSCOA and the usage of the IFMIS among municipalities in South Africa (National Treasury, 2018; Gcora & Chigona, 2019).

The objective of this study is to explore the challenges associated with the implementation of mSCOA among municipalities in South Africa. This study reduces the research-based knowledge gap on the contributing factors influencing the usage of IFMIS by municipalities in South Africa. This paper is structured as follows: The next section discusses literature related to the mSCOA implementation process. The paper further presents the methodology that was adopted by the study. It then discusses the results of the study and culminates by presenting the conclusion and recommendations of the study.

LITERATURE REVIEW

This literature review section explores the developments that led to the formulation of the mSCOA and the challenges faced by municipalities in implementing the mSCOA.

DEVELOPMENTS TO MUNICIPAL STANDARD CHART OF ACCOUNTS (MSCOA)

Governments all over the world have been striving towards specific objectives and targets to fulfil the needs and demands of the citizens they serve (Khlo & Fourie, 2006:131). Key to meeting these demands is the management of the public finances and the introduction of policies to improve effective financial management. South Africa's introduction of the Public Finance Management Act, 1999 (Act No. 1 of 1999), whose aim is to transform and modernise public financial management, must be seen in this light. The main drivers of this act are improved transparency, accountability, and sound integration of policies at the national and provincial levels of government (Khlo & Fourie, 2006:133). The *Constitution of the Republic of South Africa*, 1996, empowered the legislature with oversight responsibility over the budget process to ensure accountability for public funds. As mandated by the South African Constitution, the National Treasury developed four major financial systems for national and provincial departments, namely, the Personal and Salary Administration (PERSAL), Financial Management System (FMS), Logistical Information System (LOGIS), and Basic Accounting System (BAS) (Western Cape Government, 2003:83). To further guide the pursuit of developmental local government, the Local Government: Municipal Finance Management Act No. 56 of 2003 (MFMA) was promulgated with the key objective of modernising municipal finance management in South African local government (Municipal Finance Management Act, 2003).

There are 257 municipalities in South Africa, each with its own core financial system (Statistics South Africa, 2020:22; Department of National Treasury, 2016:5). These municipalities are divided

into three constitutional categories: metropolitan municipalities, district municipalities, and local municipalities (Constitution of the Republic of South Africa, 1996:104–105). Municipalities are further allocated powers and functions in Schedules 4 Part B and 5 Part B of the Constitution (Constitution of the Republic of South Africa, 1996:148). The capacity of municipalities to perform these functions and exercise their powers is defined in the *Municipal Structures Act* No. 117 of 1998 (MSA) and includes the administrative and financial management capacity and infrastructure that enable a municipality to collect revenue and to govern on its own initiative the local government affairs of its community. In relation to the municipalities, the Auditor General of South Africa (AGSA) carries the legislative mandate of auditing and reporting the outcomes of the accounts, financial statements, and financial management of all 257 municipalities (Public Audit Act).

Non-credible information from municipalities made it difficult for the National Treasury to conduct deeper data analysis and sector comparisons to improve financial performance (Chigwata, Murumahoko & Madhekeni, 2019). Moreover, the misalignment in the IDP and the capital and operating expenditures were the result of a failure to drive expenditure from a project perspective (National Treasury, 2014). This made it difficult to measure the impact on service delivery in communities. This is partly attributable to the fact that prior to the introduction of the Municipal Standard Chart of Accounts (mSCOA), the information technology architecture in South Africa was such that all municipalities were managing and reporting on their budgets according to their unique organisational structure and classification financial framework (Koekemoer, 2018). In other words, each municipality had its own financial reporting system. It is for these reasons that the minimum information technology system requirements were regulated for an integrated software solution for local government in order to achieve a greater level of standardisation critical for reporting across all spheres of government (Municipal Standard Chart of Accounts Regulations, 2014). There have been more efforts to regulate local government with the intention of modernising financial management. Among the interventions was the Back-to-Basics program introduced in 2014, which aimed at turning around South African municipalities but did not achieve the intended results (Chigwata *et al.*, 2019). Others include the Municipal Supply Chain Management Regulations, Financial Misconduct Procedure, and Criminal Proceedings, which have not yielded positive results considering the audit outcomes.

Municipal Standard Chart of Accounts (mSCOA) at a glance

The mSCOA is a budget reform targeting municipal operations by effecting standardisation of municipal account numbers and descriptions in their charts of accounts (Department of National Treasury, 2017). It is segmented by seven disciplines, namely, project, function, item, fund, regional indicator, costing, and municipal standard classification (Department of National Treasury, 2017). The reform was commissioned by the National Treasury through a phased-in approach for effective implementation by July 1, 2017. The National Treasury further outlined the fifteen (15) mSCOA business processes through which mSCOA would be implemented, as contained in Chapter 3 of the mSCOA Regulations. Figure 1 illustrates the mSCOA chart, which was regulated in 2014. According to the mSCOA chart, the nation's financial management has to be modernized, and all municipal business procedures need to undergo a considerable shift. The mSCOA chart may be thought of as a categorization framework for financial management that mandates that transactions be classified consistently between municipalities and from one fiscal year to the next in order to improve data quality and integrity. MSCOA is designed to standardize accounting

practices across municipalities, enabling uniform financial reporting and analysis. However, its implementation presents challenges due to differing organizational structures, information systems, and data quality issues (Sithole & Dube, 2016). Research suggests that effective training, technological infrastructure, and stakeholder engagement are critical for successful MSCOA adoption (Mkansi et al., 2020).

Figure 1: The Municipal Regulations on a Standard Chart of Accounts chart



Source: National Treasury, 2018, Function segment of mSCOA, Republic of South Africa.

According to the National Treasury (2017), mSCOA was envisaged to bring about accurate recording of transactions, which would translate into accurate and timely financial management, therefore impacting positively on audit opinions of municipalities and municipal entities. The mSCOA was considered the cornerstone of proper planning and budgeting, which would improve transparency and accountability, leading to a high level of service delivery as well as assisting in the national policy-making process (Department of National Treasury, 2017).

CHALLENGES IN THE IMPLEMENTATION OF MSCOA

Numerous studies have discussed the implementation of mSCOA across South African municipalities (Sithole & Dube, 2016). Singh (2018) highlights that the transition to mSCOA requires changes in software systems, training of personnel, and adaptation of business processes. Local governments often face challenges in aligning their existing financial systems with the new coding structure and reporting requirements (National Treasury, 2016). Literature suggests that there are various challenges faced by municipalities in the implementation of mSCOA; these include but are not limited to effective training, adequate technological infrastructure, and stakeholder engagement (Mkansi et al., 2020).

Adequate technology infrastructure is needed for effective implementation. Inadequate IT systems and infrastructure can lead to delays and inefficiencies (Booyesen et al., 2019). The adoption of mSCOA necessitates the use of updated and integrated financial management systems. However, many municipalities struggle with outdated technology infrastructure and inadequate system integration (Rabali & Lebesse, 2019). This technological gap may hinder the accurate recording and reporting of financial transactions. According to Sithole and Dube (2016), implementing mSCOA requires a skilled workforce capable of understanding the new classification system and generating accurate reports. Municipalities often face challenges in providing adequate training and capacity building to staff members, leading to errors and inaccuracies in financial reporting (Matjokana & Sibindi, 2020).

Mkansi et al. (2020) stated that change management is a crucial aspect of successful mSCOA implementation. However, Sithole and Dube (2016) posit that many municipalities encounter resistance from staff members who are accustomed to the previous financial reporting practices. This resistance can delay the adoption of mSCOA and undermine its potential benefits (Tukamuhabwa et al., 2017). Implementing MSCOA requires changes in processes and mindsets. Rabali and Lebesse (2019) postulated that resistance to change, a lack of buy-in from staff, and inadequate change management strategies can hinder the successful implementation of mSCOA. Furthermore, Mutula and Van Brakel (2016) asserted that ensuring data quality and integrity is essential for generating reliable financial reports. Inaccurate data entry and inadequate validation processes can lead to errors in financial statements. Research suggests that poor data quality is a common challenge faced by municipalities, affecting the credibility of mSCOA-generated reports (Sithole et al., 2018). Accurate and consistent data entry is crucial for MSCOA's effectiveness. Integration with existing systems and data migration pose technical challenges (Van Zyl et al., 2017).

PROBLEM INVESTIGATED

Good financial management is an essential tool for the public sector as it fosters growth and development by ensuring that the government mobilizes state revenue, effectively monitors and safeguards public funds, and aims to enhance quality service delivery to the public (Harelimana, 2017; Gcora & Chigona, 2019). In 2014, the National Treasury commissioned the Municipal Regulations on a Standard Chart of Accounts (mSCOA), requiring all municipalities to adopt and

integrate their IFMIS (National Treasury, 2017). Nevertheless, there seems to be a low level of adoption of the mSCOA and the usage of the IFMIS among municipalities in South Africa (National Treasury, 2018; Gcora & Chigona, 2019). This study seeks to explore the level of adoption and the challenges associated with the implementation of mSCOA among municipalities in South Africa.

RESEARCH OBJECTIVES

- To explore the level of adoption and the challenges associated with the implementation of mSCOA among municipalities in South Africa, using the City of Tshwane as a case study.

RESEARCH METHODOLOGY

The study adopted a qualitative approach, following an interpretive ontology to gain a deeper understanding and knowledge of the challenges associated with the mSCOA implementation process (Creswell, 2014). A case study strategy was used in this study. Academics vary in their understanding of what a case study is because there is no easy explanation (Zucker, 2009) since a case study can be explanatory or descriptive, be either qualitative or quantitative, and be done in the social sciences or natural sciences. In this study, a case study research strategy enabled the researchers to explore the adoption level and challenges associated with the mSCOA implementation process in municipalities (Ghauri, Grønhaug & Strange, 2020).

SAMPLE AND DATA COLLECTION

The city of Tshwane in Gauteng Province was used as a unit of analysis. The City of Tshwane was selected because it was the only metropolitan municipality identified as being in financial distress (Department of National Treasury, 2018b:71). Primary data was collected using semi-structured virtual interviews as well as open-ended questionnaires. Participants in the study were from the City of Tshwane (middle and senior managers) and officials from the South African Local Government Association (SALGA). The purposive sampling technique was selected in this study. A purposive sample of respondents with diverse experiences provided sufficient information on the practical implementation of mSCOA. The sampling technique was selected based on various exploratory studies by Ando, Cousins and Young (2014) and Dlamini (2016). As mSCOA is an institutional reform, the respondents were chosen in such a way that each department in the municipality is represented.

Interview guides and questionnaires were developed after a critical literature review and analysis. Fifteen interviews were conducted virtually due to the Risk Adjusted Strategy Regulations issued by the Minister of Cooperative Government and Traditional Affairs under the Disaster Management Act because of COVID-19 (Department of Corporate Governance, 2020). The interviews took between 30 and 45 minutes, and the researchers recorded the conversations with the permission of the respondents. Interviews were conducted from 23 March 2022 to 27 May 2022. These interviews were conducted in the form of a conversation rather than a structured inquiry. Rubin and Rubin (1995:26) describe this as topical interviews, which are more about how people view, understand, and explain their world.

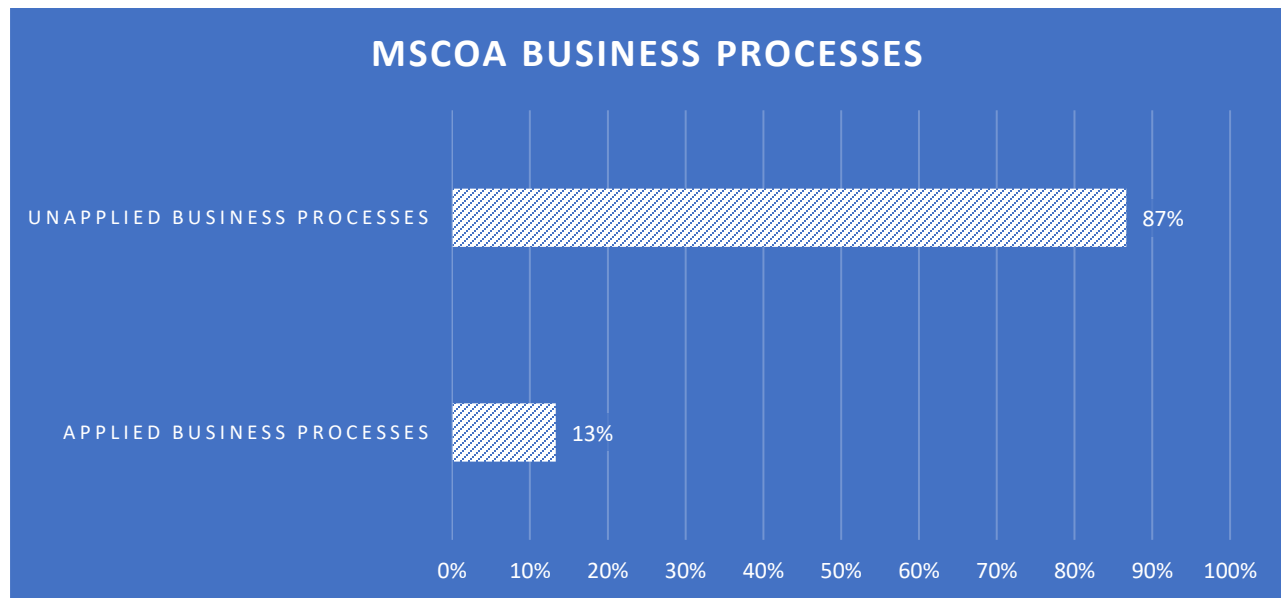
Six participants from SALGA completed questionnaires, and in-depth semi-structured interviews were conducted for follow-up questions. In addition, the sample size was influenced by an exploratory study conducted by Ando et al. (2014), wherein a codebook was developed to determine saturation. The saturation level was reached after 15 interviews with Tshwane participants and six SALGA officials. Data was collected from the City of Tshwane and triangulated with data collected from the six officials from SALGA. Secondary data was obtained from various documents that pertain to the implementation of mSCOA, including the IDP, budget processes, and regulatory framework. Thematic analysis, as suggested by Braun and Clarke (2006), was used for data analysis. The technique was used by Dlamini and Schutte (2021) in their study exploring the use of management accounting in SMEs. This approach was selected due to its convenience and adaptability in giving an in-depth yet multifaceted interpretation of data (Braun & Clarke, 2006:79). Documentation such as municipal budgets, IDPs, audit reports, information on the National Treasury's website, media reports, and any other useful information were also analysed. The study identified four analytic interests: (1) mSCOA system requirements; (2) mSCOA change management; (3) mSCOA awareness and training; and (4) mSCOA reporting. These were used in a real-life setting where the researcher formulated questions for each theme to get insights from respondents (Braun & Clarke, 2006:84; Patton & Appelbaum, 2003:65). One of the researchers was instrumental in that; she was a former Provincial Treasury official and was involved in the piloting of mSCOA in one of the municipalities in the Eastern Cape. The focus of this study was therefore explicitly analyst-driven, based on the researcher's analytic interest in the mSCOA implementation process and how it influences the Municipal Accountability Cycle (Braun & Clarke, 2006:84).

For ethical consideration, the City of Tshwane approved the study to be conducted, and a set of interview guides and a questionnaire were approved by the Ethical Clearance Committee of the North-West University. The participants were interviewed after receiving their informed consent, and they were informed that they might choose to discontinue their participation in the study at any moment. When the study reached saturation level and there was no new information being obtained, data collection was stopped.

RESULTS AND DISCUSSION

Data collected from primary sources (interviews and questionnaires) and from secondary sources was thematically analysed and Microsoft Excel 2016 was used as an analysis tool. The participants revealed that the internal audit department is one of the key departments involved in the mSCOA implementation process. The participants also mentioned that reports on mSCOA compliance are tabled with the audit committee. Figure 1 shows the mSCOA implementation level at the City of Tshwane.

Figure 2: mSCOA implementation level



Source: Own formulation

The City of Tshwane has a low implementation level of thirteen percent (13%) as depicted in Figure 2 above. From the fifteen business processes stipulated under the mSCOA regulatory framework (National Treasury, 2016:3), the City of Tshwane only implemented two business processes ("Municipal Budgeting, Planning, and Financial Modelling" and "Cost and Reporting"). All the respondents are aware that the City of Tshwane uses SAP as its core financial system. Eighty-six percent (86%) of the respondents revealed that mSCOA reform has been well communicated to all user departments in the City of Tshwane. Some of the respondents had this to say:

"No one can say he or she did not hear about mSCOA; there were many meetings, awareness trainings, and campaigns that were held" [P2],

"I know very well about the mSCOA; we had many sessions that were conducted in order to raise awareness" [P11].

The respondent also mentioned that there were various awareness sessions when the reforms were established by the Department of National Treasury in 2017, and the intentions were to increase awareness about mSCOA among all end users. However, 33 percent of the respondents indicated that the awareness sessions were too many, to the extent that they believe that they even contributed to the delays in implementing mSCOA at the City of Tshwane. One of the participants said

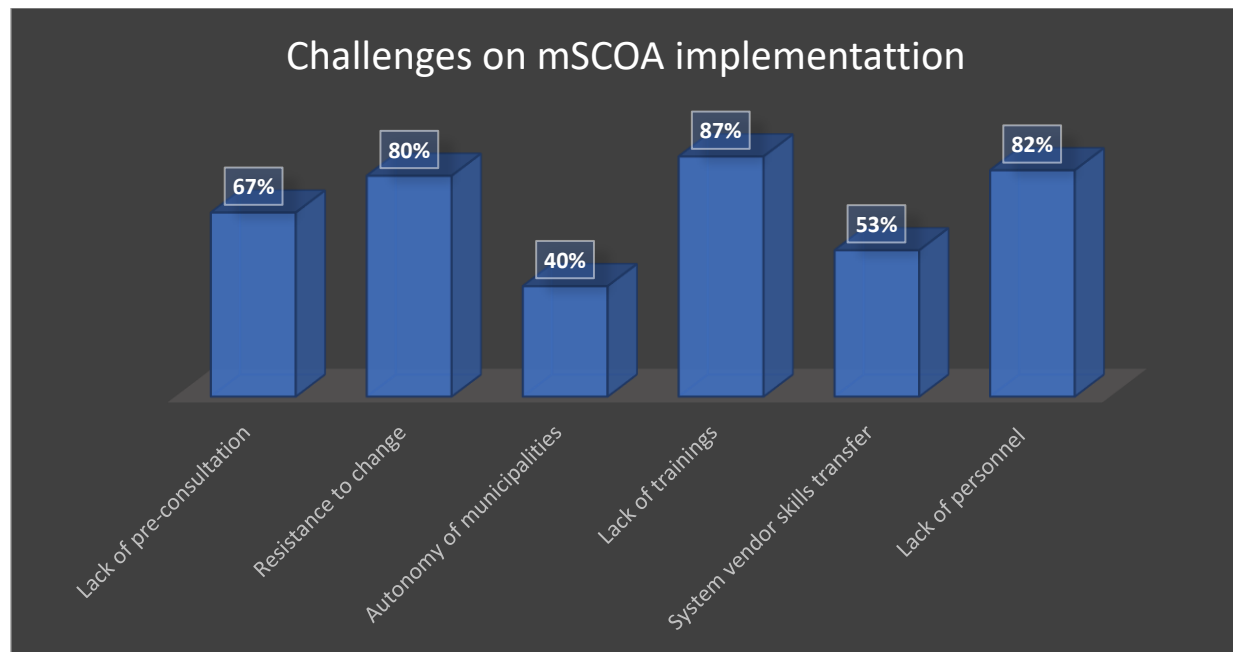
"We spent a lot of time on meetings that intended to raise awareness about mSCOA instead of working on implementing the system" [P4].

One of the participants from SALGA highlighted that mSCOA was rushed before learning lessons from the implementation of national and provincial SCOA. The participant had this to say:

"In my view, mSCOA was rushed without learning a lot of good lessons from the implementation of national and provincial SCOA" [P6].

However, the respondent believed that the National Treasury did well in terms of bringing in reforms as it became easy to put together reporting by municipalities, but the gap was not to build up towards mSCOA and did not involve the same service providers that assisted with national and provincial SCOA. Furthermore, the participants highlighted that the other grey area identified by the respondent is that when reforms were introduced, the implementers were not involved from the onset. The other issue was that most officials at the National Treasury did not have experience in the municipal environment.

Figure 3: Challenges on mSCOA implementation



Source: Own formulation

The study also revealed that resistance to change, a lack of adequate training on mSCOA implementation, and a lack of personnel are the major contributing factors to the low implementation level, as revealed in Figure 3 above. Furthermore, there is a perception that mSCOA was 'imposed' on municipalities because there were assertions that if municipalities did not implement mSCOA, their equitable share allocations would be withheld, so there was no ownership by municipalities but rather compliance. The respondent stated that when people are involved in the change, they can participate and meaningfully contribute to the change. The respondent further lamented that there is no platform in government where implementers are given an opportunity to agree or disagree with the change being made. In the same vein, Rabali and Lebesse (2019) postulated that resistance to change, a lack of buy-in from staff, and inadequate change management strategies can hinder the successful implementation of mSCOA.

The study results further revealed that the autonomy of municipalities in South Africa continues to pose challenges when the government attempts to apply uniform reporting, and these findings concur with extant literature (Mkansi et al., 2020). This uniqueness of the local government sphere requires that consideration of the category, size, and geographic area of a municipality be observed before introducing new reforms with financial implications. The study also revealed that the development of mSCOA did not take into account the overall change management process to achieve successful implementation of mSCOA. As a result, change was resisted since it was more focused on the system's success than on the demands of the end users. These findings are similar to the results obtained by Gcora and Chigona (2019) in their study that was conducted in four municipalities that were selected in the Western Cape. In their study, they found that the development of IFMIS in municipalities did not incorporate the views of the end users of the system

(Gcora & Chigona, 2019). Furthermore, the respondents revealed that the system vendor is not doing skills transfer to the City of Tshwane and that the municipality lacks adequate personnel. The study also found that the City of Tshwane did not set up a mSCOA committee to spearhead the implementation of mSCOA.

CONCLUSION

The study sought to explore the level of adoption of and the challenges faced by South African municipalities in the implementation of mSCOA, using the City of Tshwane as a case study. The study revealed a low implementation level by the municipality. The study further found that resistance to change, a lack of adequate training on mSCOA implementation, a lack of personnel, a lack of pre-consultations, and poor system vendor skills transfer were contributing factors to the low implementation level. Moreover, while local government embraces the benefits of mSCOA regulations, a lack of readiness hindered some municipalities from implementing mSCOA within the prescribed date of July 1, 2017, and there is still a long way to go in terms of achieving whole government reporting amongst the three spheres of government.

The study reveals that the existence of the three spheres of government at the national, provincial, and local levels has shown no notable uniform effort to assist one another in achieving improved financial management. Moreover, the silos mentality depicted in the City of Tshwane, where departments or business units only focus on their own affairs, is contrary to the aim of mSCOA, which is perceived as an institutional reform. Furthermore, the pervasiveness of the issue of standardising local government reporting is strongly contested by the fact that all municipalities have different financial systems, unlike the national and provincial governments that use BAS. In addition, the autonomy of the local government sphere seems to be overlooked by introducing "one-size-fits-all" approaches that do not take into account the unique capacity constraints, accountability, and economic inequalities in individual municipalities.

PRACTICAL MANAGERIAL RECOMMENDATIONS

- The City of Tshwane should adopt a phased-in mSCOA implementation approach in line with the resources available in the municipality.
- Consideration should be given to the revenue-raising capacity of municipalities when introducing financial management reforms.
- The buy-in of the implementers of reforms should be considered at the development stage by involving them then in order to ensure the success of the reforms being introduced.
- Continuous training of municipal officials and councillors should be provided by the relevant stakeholders to build sustainable capacity within institutions where reforms are being implemented.
- The technical observations that come with the mSCOA system requirements must be considered by policymakers, and more capacity-building trainings must be provided to both officials and councillors in municipalities.

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Information technology skills in the workplace: A synopsis of the challenges experienced by first-year trainee accountants

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ABSTRACT

Rapid advancement in Information Technology (IT) has brought about various changes in how accountants acquire, analyse and interpret data to inform organisational decision-making. The key trends in IT have meant that tasks traditionally performed by early-career accountants are now automated. This study examines the IT skills challenges experienced by first-year trainee accountants in the workplace. The study adopted a qualitative research approach. Through face-to-face interviews, data were collected from two accounting firm managers and 13 first-year trainee accountants. Data were analysed using the ATLAS.ti software package and thematic data analysis. The findings of this study indicate that first-year trainee accountants face various IT challenges, including difficulties in using basic IT tools and technological stress. The study was limited to accounting firms in the Mafikeng area in South Africa, with the primary participants being accounting firm managers and first-year trainees. The findings of this study provide useful insights to accounting education, accounting professional bodies, accounting firms and other stakeholders into the various IT challenges first-year trainee accountants face and strategies to overcome them.

Keywords – Accounting Education; Challenges; First-Year Trainee Accountants; IT Skills; Professional Accounting Bodies; Training; Workplace

INTRODUCTION

The contemporary business environment has transformed the dynamics of all professions, including accounting (Bahador & Haider, 2020). Rapid information technology (IT) advancement in the 21st century has changed how accountants acquire, analyse and interpret data to inform organisational decision-making (Asonitou, 2015). The key technological trends have meant that manual accounting tasks traditionally performed by early-career accountants are now automated (Jackson, Michelson & Munir, 2020; Imene & Imhanzenobe, 2020). This revolution throughout the accounting process forces accounting practitioners to improve their soft skills, such as IT-related, critical thinking, communication, and other problem-solving skills (Bahador & Haider, 2020). As a result, trainee accountants or early career accountants are expected to possess IT skills and other related soft skills to leverage technology to complete tasks in the workplace.

Concerns over IT skills and other related soft skills challenging the accounting practice are not new for many stakeholders, including accounting education, higher learning and training institutions, and professional accounting bodies worldwide (Bahador & Haider, 2020). Furthermore, the Covid-19 pandemic has forced the accounting profession to reconsider the importance of IT for future accountants (Jabin, 2021). Stumke (2017) questions whether first-year trainee accountants are competent in the use of IT in the workplace, expressing concerns over whether accounting education adequately prepares graduates to cope with emerging technologies in the contemporary workplace. Lubbe, Myers and Van Rooyen (2020) call for changes in the existing accounting education curriculum and the training of accounting professionals to integrate IT. In other words, IT-related skills should be seen as a dynamic rather than a static factor in modern-day accounting work (Jackson *et al.*, 2020).

According to the International Federation of Accountants ([IFAC], 2015), a trainee accountant is an individual engaged in gaining practical experience or in a workplace training programme to qualify as a professional accountant. In South Africa, a trainee accountant is defined as an “individual who is employed by an accredited training office and who is serving under a SAICA training contract” (South African Institute of Chartered Accountants [SAICA], 2020: p.7). A trainee accountant needs to obtain a wide variety of skills, ranging from auditing and assurance, financial management, taxation and internal audit, risk management and governance, accounting and external reporting, business ethics, and management and leadership, with the integration of IT skills training. In addition, trainee accountants are exposed to working environments where IT skills go beyond the IT and technical knowledge generally taught at the university (Van Oordt & Sullivan, 2017). Trainee accountants are therefore expected to have the required competencies and skills to use IT to complete tasks. However, scholars have observed that the majority of early-career accountants are facing challenges with the use of IT, highlighting the need for further studies on the desirable IT-related skills, competencies and attributes of trainee accountants (Andreassen, 2020; Jackson *et al.*, 2020; Kunz & De Jager, 2019).

Most accounting firms worldwide use a wide range of accounting software packages, including other operating systems such as OfficeSuite and Microsoft products, for the general automation of the office environment (Barac, 2009; Wessels, 2006). SAICA's (2020a) competency framework for entry-level chartered accountants (CAs) provides details to the extent that a South African chartered accountant (CA(SA)) should be able to understand how IT impacts a CAs daily functions and practices. The framework further elaborates on the training accountants should possess, such as basic computer skills, in order to use essential accounting software within a relevant workplace context.

Despite these rigorous and motivated efforts, extant literature in accounting education has shown that employers' expectations of IT skills and competence from accounting graduates in South Africa are higher than the minimum requirements encouraged by professional bodies (Lubbe *et al.*, 2020; Van Oordt & Sullivan, 2017; Viviers, Fouché & Reitsma, 2016). In Australia, Bahador and Haider (2020) found that the overall IT-related skills among accounting practitioners in Australia are lower than expected in the business world. In Asia, Wongsim (2016) reported that accounting practitioners in Thailand lack the necessary IT-related skills to perform contemporary accounting tasks. Parvaiz, Mufti and Gul (2017) observed that in Pakistan, most early career accountants are experiencing challenges in IT skills development. The underdeveloped skills among early career accountants were found to be a result of inadequate integration of IT in accounting education. This expectation gap indicates that accountants, including trainee accountants, are experiencing IT skills challenges in the workplace.

Although some studies have investigated IT-related challenges, the authors used different parameters (Bahador & Haider, 2020; Gebreiter, 2019; Jackson *et al.*, 2020; Stumke, 2017). In particular, their focus was on accountants in general, not specifically from the perspective of first-year trainee accountants. Thus, these studies highlighted the need to focus on IT challenges trainee accountants face in the workplace.

The objectives of this study are two-fold. Firstly, to examine the IT skills challenges experienced by first-year trainee accountants in the workplace. Lastly, to identify the knowledge gaps between the accounting education and IT skills required to perform accounting duties in the workplace. This study contributes to the body of knowledge from a qualitative viewpoint concerning IT skills challenges experienced by first-year trainee accountants in the workplace, accounting education and training, and professional accounting bodies. In addition, it enhances IT-related skills within the accounting profession.

LITERATURE REVIEW

Impact of IT on the accounting profession

The modern-day business world is changing rapidly due to globalisation, advanced IT investments and technological change (Alves, 2010). The internet, computers, servers, and wireless and personal digital devices have transformed how accounting firms conduct business (Ghasemi, Shafeiepour,

Aslani & Barvayeh, 2011). According to Jackson *et al.* (2020), accounting professionals must improve their practices by incorporating IT functionalities when performing their tasks in their business practices. Accounting firms are now investing in auditing software and knowledge-sharing applications to enhance financial data gathering, organisation, processing, evaluation and presentation (Gary & Poh-Sun, 2016). Ghasemi *et al.*, (2011) point out that IT and computerised accounting systems have provided various proficiencies to the accounting profession, such as enhanced functionality, faster processing, improved accuracy and improved external reporting. IT innovations are changing the professional environment where modern-day accountants work (Akpokiniovo & Oyovwe, 2015).

Computers and other digital IT tools have facilitated the fast exchange of information and data collection and analysis (Imene & Imhanzenobe, 2020). Accounting software packages and systems have automated the traditional paper ledgers and account books to shorten the lead time accountants need to perform their duties and have enhanced accounting information's overall efficiency and accuracy (Ghasemi *et al.*, 2011). With the emergence of IT tools, modern accountants can now prepare and present financial reports more accurately and timely (Imene & Imhanzenobe, 2020).

Trainee accountants in accounting firms

A trainee accountant is employed as an accounting clerk at any accounting training office. Trainee accountants perform their duties under the supervision of a senior accountant or senior manager to learn and conduct the day-to-day activities of the business (SAICA, 2020b). In addition, Trainee accountants are required to become representative analysts who are well equipped with the pervasive or universal business skills of abstraction and competencies to work with data and ideas to develop an all-inclusive understanding of global economic changes and IT (Asonitou, 2015).

Use of sophisticated software

Ghasemi *et al.*, (2011) identified the use of complex auditing software, automated audit tasks, and knowledge-sharing applications as the most critical IT challenges facing trainee accountants. In addition, Islam (2017) found that the increasing use of sophisticated and smart technologies and software, such as cloud computing, in accounting firms is one of the many challenges accountants face. Therefore, there is a need for trainee accountants to update their IT skills through training and inductions to cope with sophisticated software packages in the workplace (Ghasemi *et al.*, 2011).

The job description of a trainee accountant is to work with senior accountants to acquire and develop knowledge of the accounting industry and gain practical experience (Brenner, 2018). In particular, first-year trainee accountants create and send invoices, manage accounts and track inventory (Brenner, 2018). These tasks require trainee accountants to have strong IT skills and know-how. Trainee accountants must be able to use accounting software such as CaseWare and Sage Pastel Accounting, database software such as Microsoft Excel and Microsoft Access, and computer software to input and amend data and records (Brenner, 2018). It remains a concern that when first-year trainee accountants are not adequately inducted into this software, they tend to make mistakes, which increases their workplace stress (Zhao, Xia & Huang, 2020). Zhao *et al.*, (2020) further posit that using sophisticated IT can lead to technological stress and may be detrimental to an employee's work performance if the employer's expectations are not met.

Employers' expectations

There is a growing demand for accounting graduates with advanced IT knowledge and skills (Gary & Poh-Sun, 2016). Gary and Poh-Sun (2016) further posit that advanced IT knowledge and skills, such as accounting information system data analytics, are noticeably lacking among accounting graduates. Hence, the accounting industry requires professionals with adequate knowledge and skills to manage sophisticated IT demands in accounting activities and services. Practitioners have identified that IT skills in word processing, spreadsheets, standard internet, and database software should be mastered by first-year trainee accountants before entering the workplace (Greenstein & McKee, 2004). However, a South African study conducted by Kunz and De Jager (2019) revealed

that the performance of first-year trainee accountants does not meet the expectations of the organisations.

Employers expect their trainee accountants to be able to 'hit the ground running' and be productive when their duties commence (Siegel, Sorensen, Klammer & Richtermeyer, 2010). Deci and Ryan (2008) assert that the majority of trainees struggle to overcome the challenges they face, but many are self-determined to attain their full qualification. Many accountancy graduates do not adequately meet the standards set by potential employers, which might be due to the lack of exposure to IT skills required during training. Marx, Mohammadali-Haji and Lansdell (2020) confirm that, in most cases, many cannot fully implement basic IT skills in day-to-day, highly demanding accounting practices.

IT skills required by trainee accountants

The demand for IT skills among first-year trainee accountants and the need for skilled accountants who can cope with the challenges of rapid advancement in financial technologies have been emphasised in previous studies (Lubbe *et al.*, 2020; Viviers *et al.*, 2016). Numerous studies identified IT computer skills requirements for accounting graduates in IT, such as spreadsheet software (Microsoft Excel), Microsoft Windows, Microsoft Word and internet capabilities (Albrecht & Sack, 2000; Barac & Du Plessis, 2014; Helliard, Monk & Stevenson, 2006; Wessels, 2008). A study conducted in Australia emphasised the importance for first-year trainee accountants to be able to use word processing, spreadsheets and presentation software (Helliard *et al.*, 2006). These include standard internet, database and spreadsheet software (Microsoft Excel), Microsoft Windows, a word processing programme (Microsoft Word) and internet capabilities.

Accounting firms worldwide consider computer skills critical among first-year trainee accountants; however, many trainees lack the skills and competence to use basic computers, Microsoft Office and accounting software (Thottoli, 2021). Wessels (2008) posits that a first-year trainee accountant should be able to master the Microsoft range of products, OfficeSuite, web browsers, and email for the general day-to-day office environment. First-year trainee accountants should obtain these IT skills and proficiencies from school or university.

RESEARCH METHODOLOGY

The study adopted a qualitative research approach. DeJonckheere and Vaughn (2019) posit that the qualitative research approach enables a connection between the researcher and the participants during the process of data collection and allows for probing deeper questions for broader data. At the time of this study, there were approximately 11 000 registered trainee accountants and 720 registered SAICA training offices (Potgieter, 2021). The target population of this study consisted of SAICA training offices in the Mafikeng area. Four SAICA training offices were in the Mafikeng area as of July 2021 (saYellow.com, 2021), which are included in the sample for this study. These firms employed trainee accountants who could share various experiences and perceptions with the researcher. In each selected firm, the researcher utilised first-year trainee accountants and managers. To attain a point of saturation, which is a point where no new information is obtained, 15 participants (13 trainees represented as T1-T13 and two managers represented as M1 and M2) were utilised for the study. Data gathered through the interviews were first transcribed from audio to text by a qualified transcriber. The data were then thematically analysed with the assistance of an independent coder using the ATLAS.ti™ 9 software programme. Finally, employing thematic data analysis, the researcher closely examined the transcript data to identify common themes, topics, ideas and patterns of meaning. In conducting the thematic data analysis, the researcher followed the six-phase process identified by Braun and Clarke (2006). These codes were cross-referenced with the research objectives to keep the investigation on track.

RESULTS AND DISCUSSIONS

The research objectives, themes and sub-themes that emerged from the coded data are summarised in Table 1.

Table 1: Research objectives, themes and sub-themes

Research objectives	Themes	Sub-themes (most critical challenges)
To examine the IT skills challenges experienced by first-year trainee accountants in the workplace	Theme 1 IT-related challenges	- Software challenges - Microsoft Excel challenges - Employers' expectations

Source: Author's own compilation (2023)

Theme: IT-related challenges

This research objective aimed to identify the IT-related challenges first-year trainee accountants experience when they enter the workplace. The relevant sub-themes and quotes are presented in Figure 1: software challenges, Microsoft Excel and employer expectations.

The participants mentioned other challenges like software training, family responsibilities, and Covid-19. However, they were seen to be less dominant. Hence, this study only emphasised software challenges, Microsoft Excel, and employer expectations.

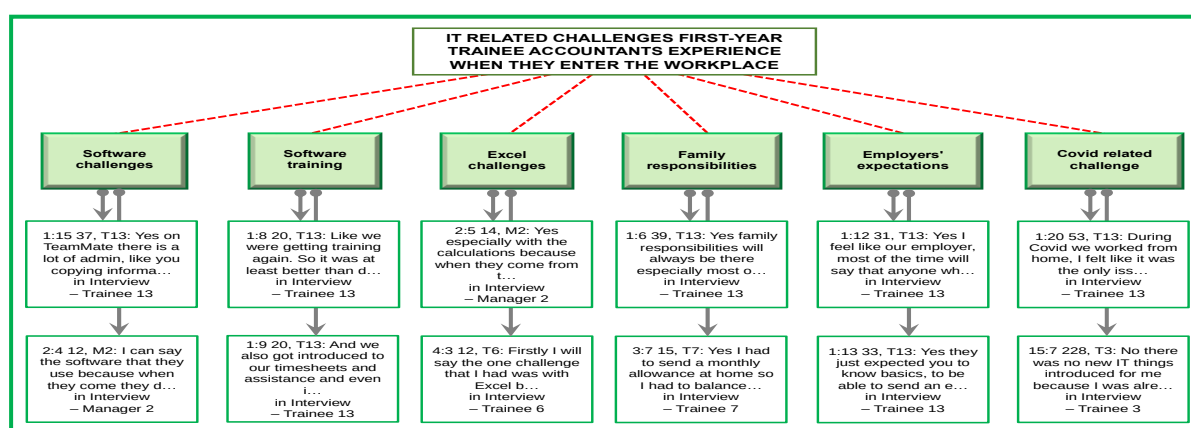


Figure 1: IT-related challenges first-year trainee accountants experience when they enter the workplace

Source: Author's own compilation (2023)

Software challenges

Software challenges were one of the challenges identified by the participants. Participants mentioned that CaseWare, Microsoft Excel, and TeamMate programmes are challenging. The following extracts are of participants' comments:

T3: "I was just using the audit programs, yes, because there are mainly two. It is CaseWare for the private and TeamMate for the public sector. So, the challenge would only be getting your way around using the software and knowing how to navigate around those applications."

T13: "The IT challenges I have experienced thus far when I started training was the audit software. TeamMate is an audit software as well. So, when we got here, at least, we went for training in Bloemfontein, where they taught us the basics. All of us were there. So, during that week, I felt so lost; I felt like the information was too much and overwhelming."

T14: "Yes, during that first period. In the beginning, it was so confusing. Like when they say you should send an update, there is a replica of the updates, so you won't know which is which. But as time goes by, you get used to those things."

When asked by the researcher what the exact IT challenges were with the software, participants T7 and T13 replied as follows:

T7: "The IT challenge was that I did not know how to do some other things like hyperlinks, I did even know how to solve an issue using the software. That is something that you learn along the way when you audit as a first-year trainee being assisted by your assistant managers."

T13: "Like on TeamMate, there is a lot of administration, like you're copying information, copying from this tab to that tab and knowing which method to use. I felt I take long compared to those that are very fast when it comes to that. Even now, I [feel] I am still doing the same."

This may indicate that the software programmes are not user-friendly, resulting in challenges encountered by the first-year trainees, as most still struggled with the programmes even after training. Ghasemi *et al.*, (2011) state trainee accountants experience software challenges. Zhao *et al.*, (2020) posit that sophisticated use of IT can lead to technostress for employees, as many do not have the necessary knowledge and skills to use IT software. This was confirmed by Participant M2:

M2: "I can say the software that they use of the audit and Excel software is a challenge because when they come, they do not have any idea of the program that we use, so we have to start by introducing them to the software and then teach them how to use it. So, some will get it at no time, but some will struggle; they take time before they can understand it in the second or third year."

When asked by the researcher whether they were taught how to use accounting software at university, participants T4 and T6 indicated they were taught Sage Pastel Accounting; however, they used different software programmes at the accounting firm. This aligns with Van Oordt and Sullivan's (2017) findings, who argue that modern-day trainee accountants are exposed to working environments where IT skills go beyond the IT and technical knowledge generally taught at university. Brenner (2018) also found that although basic IT programmes such as Sage Pastel Accounting and Microsoft are taught at the university level, evidence has shown that these are insufficient, as first-year trainee accountants struggle to incorporate these skills in the workplace. This was also evident from this study, as participants T4, T6 and M2 expressed that the lack of obtaining the basic knowledge of software programmes at the university has led to IT stress at the workplace. Participant T5 further mentioned that she was determined to overcome the challenges and understand the applications.

Therefore, it can be deduced from these findings that using software programmes is also part of the IT challenges that stress first-year trainees in the workplace, and trainee accountants can only overcome such challenges if they are self-determined.

Microsoft Excel challenges

Skills in the Microsoft Excel package are critical for accountants. The findings from this study confirmed this view, as the majority of the participants indicated that they struggled with the Microsoft Excel formulas and that it was a complex process for them, as most of them did not cover the application details in university. Participant T6 stated:

T6: "Firstly, I will say the only challenge I had was with Excel, because I did not know much about it from university. The deeper knowledge like formulas and others. I only knew the basic of Excel; that was my challenge."

Microsoft Excel has many challenging formulas (Miller, 2018). If these formulas are not correctly applied, errors may occur. This suggests that first-year trainee accountants may face challenges relating to formula errors in Microsoft Excel. Participants T7 and T9 also confirmed that they often made mistakes with the formulas, making them look incompetent. Participant M2 also stated:

M2: "Yes, especially with the calculations, because when they come from the university, they have the basic knowledge of Excel. They struggle to apply the formulas in Excel and still face challenges even after training."

Based on the views depicted above, it can be said that participants T6, T7, T9 and M2 attested that Microsoft Excel creates IT challenges for first-year trainee accountants. For example, designing formulas in Microsoft Excel is challenging; if not employed correctly, the data analysis can be prone to errors (McCann, 2019). Therefore, to assist first-year trainee accountants, it is essential to regularly coach them on using Microsoft Excel spreadsheet features.

According to Brenner (2018), data-based software such as Microsoft Excel functions is one of the IT-related tasks required of trainee accountants. Although they are required to have basic knowledge of CaseWare and Sage Pastel Accounting, the findings from the study showed that Microsoft Excel was an important IT function required of trainees. In contrast, other IT software skills were obtained through training. This is evident from responses by participants T1 and T7:

T1: "You need to know Excel; you need to know just the basic Excel, Word, mostly Excel, because even after a year, they took us for [an] advanced Excel course at North-West University. Yes, so you need to know Excel, and then they will take you through the TeamMate system."

T7: "Basically, Excel, because we need ACMP [Advanced Certificate in Management Practice] in varsity. And then there is this period where they train us, so they will teach us how those software work. We use things like TeamMate; they show us how it works, how to import, export, the hyperlinks, and those interesting things. At first, it was not easy to adjust, but I managed to cope."

The inference drawn from the verbatim quotes is that first-year trainee accountants are expected to have basic knowledge of Microsoft Excel functions and how to utilise these functions. In addition, as discussed in the literature, trainee accountants are required to have the ability to use accounting software to capture and amend data and records (Barac & Du Plessis, 2014). Participant M2 further confirmed the need for first-year trainee accountants to have basic computer knowledge, but said that accounting firms do provide training to them on other IT software:

M2: "Regarding IT, we only expect them to have basic knowledge about the computer and how to use Excel functions. Yes, we train them on the kind of programmes we use, but they should have basic computer knowledge and how to use it."

In further reinforcement of this point, Participant T8 indicated that Microsoft Excel functions were taught at university, but to a limited extent.

T8: "One of the skills is Excel; you know, in school, we studied some of these packages, but it was very shallow, so now when they were exposed to it [it] was a little bit of a challenge. So, I needed to put in more effort to be able to grab the content I use of Excel as a package in accounting."

Both Participant T8 and Participant T10 suggested that the Microsoft Excel functions are needed for first-year trainee accountants. However, this was taught at a basic level. This means that first-year trainee accountants need to implement strategies related to the cognitive appraisal method to develop their IT knowledge to carry out their duties.

Word documents

First-year trainee accountants are required to have basic Microsoft Word skills to carry out their duties.

T13: "You need to know how the computer works, so you need to have knowledge [of] Microsoft Office that includes your Word documents and how the functions in the Word document work."

This view was supported by Participant M2:

M2: "Regarding IT, we only expect them to have basic knowledge about the computer and how to use Excel functions. Yes, we train them on the kind of programmes we use, but they should have basic computer knowledge and how to use it."

These views indicate that first-year trainee accountants need basic knowledge of Microsoft Word. This includes the ability to type and apply various Microsoft Word functions. In addition, this finding indicates that trainees must have competency, such as the ability to process information in Word. Albrecht and Sack (2000) also highlight the word processing programme (Microsoft Word) as an IT skill required of accounting graduates.

Employers' expectations

According to Gary and Poh-Sun (2016), the world is evolving, and IT knowledge is essential in the Fourth Industrial Revolution, while advanced knowledge of IT is required of employees. Participants T4 and T3 stated the following:

T4: "Yes, I feel like our employer, most of the time, will say that anyone who comes here is the best. This makes us feel like they want us to perform and know more."

T13: "Yes, they just expected you to know [the] basics, to be able to send an email, be able to Google, and know how to use the basic Excel formulas."

Kunz and De Jager (2019) revealed that the performance of first-year trainee accountants often does not meet the expectations of the trainee office. Section 2.5.2 highlights that some employers want their trainee accountants to be able to 'hit the ground running' and be productive from the start of their duties (Siegel *et al.*, 2010).

This study determined that it is important that employers lower their expectations of the IT skills of first-year trainees to enable them to feel relaxed and to cope with the new and advanced knowledge. Both Participant T6 and Participant T7 reported that the expectations of their employers were not high in terms of IT skills requirements and that they were very patient with first-year trainee accountants. This does not mean employers should employ trainees with no knowledge of IT, but that they rather expect basic knowledge of IT. If universities can teach basic IT skills to students, it will assist these graduates before they go into training when they start their new jobs at accounting firms.

CONCLUSION

This study examines the IT skills challenges experienced by first-year trainee accountants in the workplace. It identifies the knowledge gaps between the accounting education and IT skills required to perform accounting duties in the workplace. The findings revealed that first-year trainee accountants must have basic IT knowledge such as Microsoft Excel, word processing programmes (Microsoft Word), email and Google functionality. These findings are parallel to previous studies, whose findings indicate that trainee accountants (accounting graduates) required computer skills and knowledge such as spreadsheet software (Microsoft Excel), Microsoft Windows, word processing programmes (Microsoft Word) and internet capabilities, spreadsheets and presentation software, as well as mastery of the Microsoft range of products, OfficeSuite, web browsers and email.

The participants indicated that they were provided with training on using Microsoft Excel, as most had a limited understanding of the programme. What was new in this study was that the first-year trainee accountants needed to use TeamMate, Sage Pastel Accounting or CaseWare to conduct their duties, depending on the software package used by their firm. Many first-year trainee accountants attested that they did not have experience using these IT packages when they started working firm. However, they had to undergo training to keep abreast of the use of these software programmes. Learning the software was stressful for some first-year trainees, and many participants indicated they did not receive adequate training during their university studies.

This study recommends that managers should organise regular workshops for first-year trainee accountants. The first-year trainee accountants interviewed in this study indicated that although accounting firms provide a once-off IT training workshop, many skills are covered in a short space of time. Hence, they struggle to utilise IT software effectively. Therefore, accounting education should ensure more integration of IT skills in the accounting curriculum. In addition, provision must be made specifically for first-year trainee accountants for in-depth training by the professional body.

The study's limitations are compounded by the fact that it was a small-scale case study, with conclusions that cannot be applied to all first-year trainee accountants in all South African accounting firms. As a result, future research should focus on a comparative study with other countries to investigate IT skills challenges experienced by early career trainee accountants in the workplace and to identify the knowledge gaps between the accounting education and IT skills required to perform accounting duties in the workplace as well as strategies used by the different countries to overcome IT-related skills challenges.

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South African consumers' perceptions of wearable activity trackers: a post-pandemic perspective

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ABSTRACT

The Covid-19 pandemic emphasised the importance of keeping track of one's current health status. The functionality and convenience of wearable activity trackers led to a substantial increase in global demand. To ensure the progression and continuity of the wearables market in South Africa, it is essential to investigate how consumers perceive this technology. To this end, this study investigated consumers' perceived awareness, attitude, quality, price/value for money, purchase intentions, and the brands and technological features they prefer. Data were collected using a computer-administered survey and analysed using SPSS version 28.0, comprising descriptive statistics, reliability and validity analysis, and a one-sample t-test. A non-probability sample of 487 general South African consumers aged 18-56 was targeted. While smart wearables are considered a pioneering technology, endless marketing opportunities exist for various stakeholders given that the findings suggest South Africans are keenly aware of these devices and have a positive attitude, quality perception and purchase intentions while considering these devices as providing value for money. The results also reflect the top brand and tech features consumers prefer, which have several additional implications for the industry.

Keywords: Consumer behaviour, health consciousness, pandemic, preferences, South Africa, Wearable technology

INTRODUCTION

The wearable fitness technology market, including the various wearable activity tracking (WAT) devices, has proliferated since the first wristwear was commercialised in 2009. Multiple factors contributed to this rapid growth, most notably the increase in consumers' health consciousness and technological advances (Loomba & Khairnar, 2018; Muller, 2022a). Despite the economic impact of the Covid-19 pandemic, several growth possibilities emerged in the smart wearables market, as reflected by the understandable growth in demand for health-related products, including a device that can keep consumers updated with their health statistics. That is, the "health scare" resulting from the pandemic may have contributed further to the progression of WAT device sales, as more significant numbers of consumers started relying on wearable devices for personal health information such as body temperature and heart rate (S&P Market Intelligence, 2020), and blood-oxygen levels. Consequently, the increase in demand for devices that can measure blood pressure, heart rate, blood oxygen saturation and sleep patterns as metrics to monitor during the pandemic lead to pioneering higher-tier WATs. The caveat of these devices, in general, is the awareness, accessibility and price consumers must pay to receive the benefits of using them. This significantly impacts the successful diffusion and continuity of WAT brands in South Africa – a country plagued by economic challenges and consumers with decreased disposable income and spending power resulting from higher living costs (Business Tech, 2022).

To guide various stakeholders, including WAT manufacturers (brands), resellers, marketing professionals, academics and content creators, to take advantage of the multiple opportunities that exist to capitalise on the wearables market, this study addresses pointed research gaps. This study provides valuable managerial insights and potential based on information unavailable in the South African consumer market after the pandemic. That is, this study:

- report device ownership as of mid-2022, consumers' brand preferences, the device types they used, the amount of money they were willing to spend on a single purchase and, more importantly, the technical features or specifications they preferred.
- fills the literature gap attesting to South African consumers' awareness of this technology after the pandemic, their attitudes and purchase intentions, and whether they perceived WAT devices as being high-quality products and providing value for money.

This information is critically relevant for brands, manufacturers, resellers and marketers to gain a competitive advantage as they can be the pioneers of new technology consumers prefer.

LITERATURE REVIEW

WEARABLE ACTIVITY TRACKING DEVICES DEFINED

Consumers need clarification about the exact definition of an activity-tracking device since they believe it to be synonymous with smartwatches. To distinguish smartwatches are wearable and classified as their market (International Data Corporation, 2016). They are suitable for users who wish to remain up to date with calls, emails, and text messages without having to take out their phones (Chang, 2017) while recently being able to use their smartwatches for wireless payments. An activity-tracking or fitness device, on the other hand, refers to any physical device or application on smartphones that can track the user's movement and metrics on a real-time basis (Muller, 2019) whilst being able to connect wirelessly to another smart device, such as a computer or smartphone to display the recorded information visually (Kingston, 2015; Techopedia, 2018). Furthermore, dedicated wearable fitness trackers are developed for users interested in tracking health and physical activity-related data to improve their health and fitness levels. These devices are also commonly used as training tools for various sporting codes, like running, cycling, swimming and strength training.

Given that significant brands have blurred the line between smartwatches and dedicated fitness trackers by manufacturing hybrid devices, paired with the emphasis on feature preference and perception regardless of the wearable, this study defined wearable activity trackers as: "any type of device that is attachable to the human body, including clothing items, capable of measuring the user's movement and fitness-related metrics, whilst simultaneously providing real-time feedback using a smart device" such as a smartphone or desktop application or web service (Muller, 2019). Hence, smartwatches formed part of the scope of this study.

WEARABLE ACTIVITY TRACKER MARKET OVERVIEW

Wearable activity trackers were reportedly the largest wearables category by unit sales in 2019, with a projected income potential of 2.66 billion USD (CCS Insight, 2019). The exponential growth and importance of the wearable tracker market are highlighted by the estimated 134 million USD generated in 2021 (Statista, 2021), followed by the expected 48.2 billion USD by 2023 (P&S Market Research, 2018). Globally, the WAT market is accounted for by more female users (57%) as opposed to male users (43%), with China and the USA at the forefront considering revenue generation and user penetration, respectively (Statista, 2020a). Contrary to the global market, the South African WAT market comprised more males (55.6%) than females (44.4%) and considering worldwide revenue was ranked 18th and 17th in terms of user penetration in 2020 (Statista, 2020b). South Africa is reported to be the next big market for WAT devices and smartwatches (Business Tech, 2018) since, despite the lower penetration rate, the country ranked among 150 of the world's leading digital economies for the wearables segment. In terms of age distribution, the global and South African WAT segment is driven by individuals aged between 18 and 34 years, with increased use among consumers aged 35 to 55 years (Statista, 2020a, 2020b), comprising the Generation Y and X cohorts

(Markert, 2004).

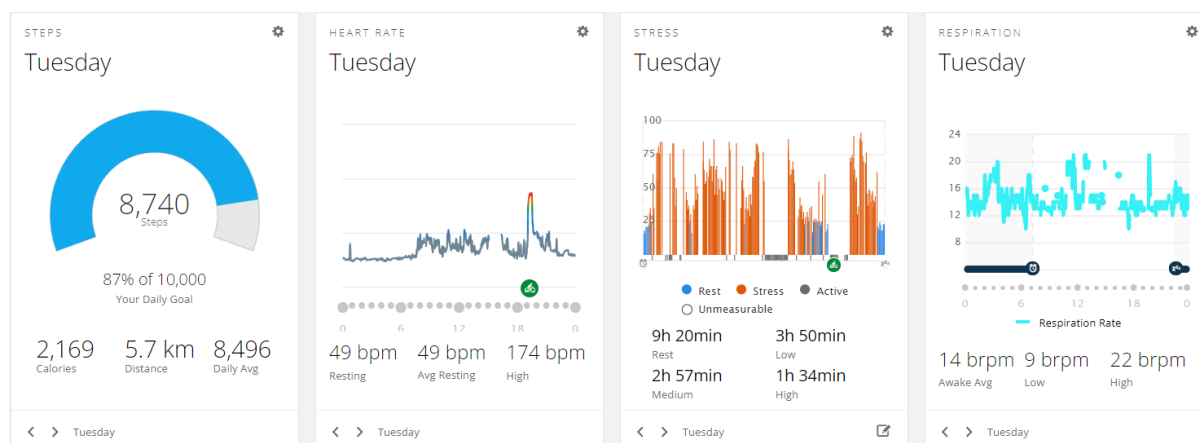
WEARABLE ACTIVITY-TRACKING DEVICE TYPES, CHARACTERISTICS, AND FEATURES

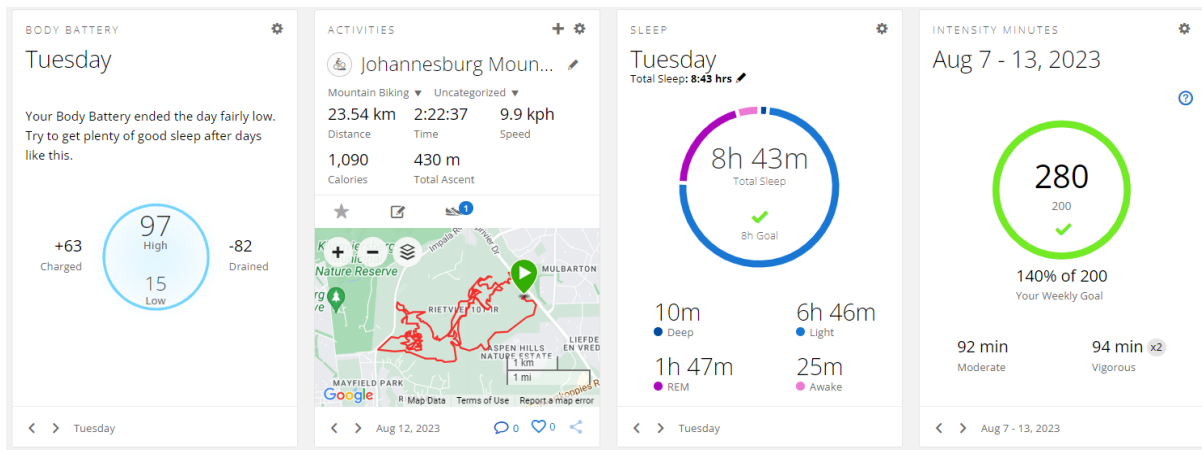
While the types of devices can be deduced from an internet search, both web content and academic literature omit a comprehensive summary of all the kinds of WAT devices in the market. One study (Muller, 2019) attempted to identify and define the WAT devices available, though this record is relevant to 2019, after which many technological innovations resulted in the expansion of the market. Nonetheless, most of the types of devices are still pertinent and include essential to advanced clip-on pedometers (Van Heerden, 2016), heart-rate-based chest straps, arm straps (Halse, 2018), and headbands (Price, 2017); fashion bracelets (Halse, 2018); fitness bands with or without an interface (Nield, 2017); smart clothing (Mackenzie, 2015); smart rings (Van Heerden, 2016); smart jewellery, such as the Swarovski activity crystal (Stuart, 2016); headphones or earphones, known as hearables (Dubey, 2017); smart sneakers (Eadicicco, 2016); smart insoles (Nguyen, 2016); digital and analogue watches, where a combination of the two is also available.

Consequently, the scope of this study comprised the categorical types identified in the literature of which the abovementioned form part, namely fitness watches, fitness bands, heartrate straps worn on the head, arm or chest, smart clothing, smart jewellery, clip-on pedometers/step counters, and added smartwatches (a separate market in its own right). Initially, smart heads/earphones were added as a rightful wearable fitness tracking device type since these devices use photoplethysmography to measure the user's heart rate data by taking a photoplethysmograph (PPG) using small skin penetrating lights that reflect off the blood vessels (Palladino, 2016). However, the sample misinterpreted this category of smart wearable with that of Bluetooth-enabled smart hearables, such as Apple Air Pods and Samsung Buds. Therefore, this study did not report the data for this type of device to avoid misrepresentation. Future research will clarify the definition to avoid this confusion.

Regarding features, some of these categorical types of devices use a combination of accelerometers, altimeters, sensors, and algorithms to track various health and fitness-related metrics. These include tracking the user's number of steps taken, distance travelled, or calories burnt (Beckham, 2012), with most modern devices being able to measure the users' static or optical heart-rate data (Rettner, 2014); record different sports sessions, such as running or cycling (Hong, 2015); and measure stress levels (Nield, 2017). Figure 1 illustrates metrics captured by a Garmin Forerunner 745, which was synchronised with the Garmin Connect Web Interface – thus presenting what a consumer using this device will see daily, granted they wear such a device.

FIGURE 1:
Data captured from a Garmin Forerunner 745





Source: Author's own

Figure 1 displays some of the metrics that most devices on the market can produce, such as steps and distance (top left), followed by heart-rate data, upon which the stress metric is based. At the bottom right, it shows sleep data and intensity. As these devices evolved, newer models allowed users to manually enter food and hydration data directly onto the device or corresponding application (Caddy, 2016). To improve sedentary patterns, some devices have a posture reminder function or inactivity alert (Bumgardner, 2017) to remind the user to move when becoming sedentary for extensive periods. Higher-tier devices measure users' detailed sleep patterns (including sleep score), have full-colour displays, and some have OLED interfaces that are fully waterproof. Some brands equip their devices with a GPS for superior tracking functionality (Bottom, middle of Figure 1), whereas some need to use their smartphone's GPS technology. Many brands saw the potential usefulness of health-related metrics that show the user their respiration rate (top right) and body battery (bottom left), which can be monitored to ensure they remain healthy and not sick, recover well and be informed when to consult a doctor. Furthermore, as a fashion item, for matching wrist-based devices with sports and work attire, many devices are customisable with interchangeable bands and watch faces (Duffy & Colon, 2016).

Most WAT brands are attempting to increase their value proposition and provide value for money to their users. To this end, they add more sensors, including a combination or limitation to on-board GPS (Glonass and Galileo) as opposed to linked GPS, optical heart rate as opposed to static, related blood pressure functionality, a barometric altimeter, compass, thermometer, gyroscope, and pulse oximeters to measure blood oxygen saturation, where flagship, high-end devices have an integrated solar panel for extended battery life for extended outdoor excursions. Although the features might entice many consumers, it is suggested that the competitive advantage lies in what these brands offer in addition to the technology hardware (Muller, 2022b). For instance, ensuring the statistics generated by the sensors embedded in the devices are simplified in their presentation displayed in the companion application (as shown in Figure 1), where the user can easily interpret the data. Most brands also differentiate their position in the market by offering a unique digital rewards system such as badges, challenges and achievements that reward users for reaching goals and foster user communities on social media sites.

Accordingly, WAT brands must pioneer devices that provide optimal user value. Thus, to capitalise on this opportunity, it is vital to determine which features South African consumers prefer. For one, having a device with many features and sensors will likely not be affordable to the general population. Finding a balance between quality and price/value for money is essential. That way, marketable devices can be manufactured to satisfy consumer demand and the growth of the WAT market in the country. More than just determining feature preferences is required to progress in this competitive technology industry. Therefore, this study dives deeper into understanding consumers' behavioural perceptions of health-monitoring technology from a post-pandemic perspective.

CONSUMERS' BEHAVIOURAL PERCEPTIONS OF WEARABLE TECHNOLOGY

As a post-pandemic departure point, this study investigated five specific consumer perceptions: awareness, attitude, quality and price/value for money perception, and purchase intentions. This study sought to first determine South African consumers' WAT brand awareness, especially after the covid pandemic, where a more significant emphasis was placed on keeping track of one's health and well-being. Consumers' quality perception was also investigated based on the metrics these devices can produce. Directly correlated with quality perception, this study further aimed to establish whether SA consumers perceive the cost of purchasing a WAT device is justified in the value it produces and, more importantly, their attitude towards these brands and the devices they manufacture. Ultimately, it is vital to know whether consumers intend to purchase these devices for these stakeholders to move forward.

Brand awareness can be defined as "the extent to which a consumer can recall and recognise a particular brand" (Du Toit & Erdis, 2013). From this definition, it can be deduced that if consumers are aware of a brand, they are inclined to be mindful of its products and services. Awareness of a brand and its products and services is essential to its success in the marketplace since a consumer needs to be aware of a brand before purchasing its products (Müller, 2017). In this study, brand awareness was directly correlated with WAT device awareness as synonymous concepts, implying that consumers aware of Garmin will be mindful of their trackers. This factor was investigated through a series of statements relating to whether individuals of the South African sample were aware of and familiar with their preferred WAT brand and its devices and could recognise their preferred brand's devices among those of competitors. Whether their preferred brand's devices come to mind when thinking of WATs, as suggested by Yoo et al. (2000). The authors' original scaled items were adapted to the context of this study. This factor was justified based on prior findings that awareness significantly influences consumers' attitudes and purchase intentions (Shahid et al., 2017; Susilowati & Sari, 2020).

Derived from the renowned author on the topic, Ajzen (1993) describes an attitude as "an individual's disposition to react with a certain degree of favourableness or unfavourableness to an object, behaviour, person, institution, or event—or to any other discriminable aspect of the individual's world." As such, the brand attitude was directly correlated with consumers' attitudes towards the WAT devices manufactured by their preferred brand. It was investigated, as suggested by Grace and O'Cass (2005), through the samples' reactions based on whether they perceived their preferred brand and its devices as good, nice, attractive, desirable and extremely likeable. This factor was justified based on prior findings that consumers' attitude towards smart wearables significantly influences their purchase intentions (Kim & Shin, 2015; Choi & Kim, 2016; Wu et al., 2016).

Purchase intention refers to a person's intent to purchase a product or service through e-commerce channels or physical stores. Since purchase intent is a precursor to actual purchase behaviour, WAT brands need to understand the likelihood of South African consumers purchasing their branded devices, also consumers' repurchase inclination. Accordingly, this study aimed to establish South African consumers' chance to buy a branded WAT device for those who did not own this technology at the time of data collection and also the likelihood of users who owned device(s) to purchase other devices in the future. Response statements, as derived from Grace and O'Cass (2005) and Besharat (2010), comprised: "I would definitely like to try/continue to try my favourable WAT brand", "I would definitely like to buy/continue to buy my favourable WAT brand if I see it in a store" and "I would definitely seek/continue to seek out my favourable WAT brand in a store to purchase it." With behavioural intention, measured as purchase intentions in this study, being directly dependent on actual behaviour (Ajzen, 1991), determining South African consumers' WAT purchase intentions is critical.

Furthermore, WAT brands must understand consumers' quality and price/value for money perception, as these factors are interrelated. That is, if this technology is not perceived as of sufficient quality in terms of build and metrics produced or if these devices are too expensive for what is offered, then consumers are unlikely to adopt this technology. Keller (2013) describes perceived quality as consumers' subjective judgement regarding a brand's quality and superiority over its closest competitors. While these devices seem appealing, many consumers cannot afford the understandable high price tag associated with these devices, especially devices manufactured by reputable, high-performing brands such as Garmin, Fitbit, Polar, Suunto, Apple, Samsung, Huawei

and Xiaomi, among others. For example, searching for “smart watches” on South Africa’s most popular eCommerce site, Takealot, the cheapest option is an off-brand device for R195 (Takealot, 2023a). The caveat to these devices is the poor performance and consequent low rating for these devices (3.2/5 stars). In other words, consumers, given the novelty and unfamiliarity of the technology, and most likely their aim to mitigate financial loss based on the perceived cost of these devices, made a poor purchasing decision. On the other hand, highly rated devices (4.8/5 stars), keeping realistic pricing in mind, such as the “Xiaomi Smart Band 7” (a smartwatch) and the “Garmin Forerunner 245 Smartwatch”, with assumed lower performance risk, costs R999 and R3,999 respectively (Takealot, 2023b). The most expensive device on this platform is the “Apple Watch Ultra GPS and Cellular with Titanium Case (49mm) and Trail Loop S/M”, priced at R19,989. Of course, when consumers see these devices advertised in weekly leaflets or online, their immediate perception can be assumed to be that these devices are not affordable.

Accordingly, brands that manufacture higher quality WATs often charge premium prices based on the higher value attached to the brand resulting from consumers’ quality perception. This links directly with price/value for money, where consumers review the product in question and subjectively determine whether it is worth the price they must pay to obtain it. Consumers are typically willing to pay more for reputable, high-quality products from reputable brands. Therefore, this study investigated South African consumers’ quality and price/value for perceptions through statements adapted and contextualised by Grace and O’Cass (2005) and Besharat (2010). For quality perception, statements themed around the perceived reliability of the metrics produced by their preferred brand, whether their preferred brand had exclusive features and whether it was perceived as technically advanced while receiving good support service from the brand. Statements relating to price/value for money included whether the sample thought WAT devices are reasonably priced, offer value for money, provide a good product for the price and are cost-effective. These factors were justified based on prior findings that consumers’ quality and price/value for money perception significantly influences their attitude towards the object in question (Kim & Shin, 2015; Susilowati & Sari, 2020).

METHODOLOGY

RESEARCH DESIGN, SAMPLING METHOD, AND DATA COLLECTION

This study followed a descriptive research design and a cross-sectional approach. The target population comprised adult consumers aged 18 to 56, residing in all nine provinces in South Africa. This age inclusion was based on the definition of generational cohorts by Markert (2004), where 18–36 represented the Generation Y cohort, and 37–56-year-olds represented the Generation X cohort. As a quantitative study, data were collected from 500 general South African consumers in mid-2022 using a computer-administered survey. A non-probability sample of 500 respondents was justified for two main reasons: resource constraints such as time and finances when using a research company and the ratio between questionnaire items and respondents. First, the research company fees, considering the questionnaire length, were computed to R110 per response, meaning it is a costly practice to collect data using this method but very reliable. Data was also required as close to the pandemic being under control, around mid-2022. Second, Memon et al., (2020) suggest there should be five respondents per scaled response, concluding that 500 was sufficient in this study.

During their data gathering process, a reputable research company in South Africa that adheres to ethical standards and POPI Act regulations was used to distribute the survey amongst their panel members. While respondents receive incentives to complete various surveys on this platform, which can be exchanged for store vouchers, the responses are not biased. Specific parameters were set before distribution to ensure data collection from a particular target population. The following instructions were provided in terms of inclusion criteria for the sample: respondents should be aged 18 to 56 in 2022, with an equal distribution of gender, and they had to reside in South Africa at the time of the survey. With these criteria, no data that fell outside the study’s target population were collected. The data were returned to the researchers in the form of data files immediately after the quota of 500 was reached.

RESEARCH INSTRUMENT

The research instrument used to collect the data for this study was subject to a rigorous approval process, including being approved by a scientific and ethics committee. These committees confirmed this study as bearing minimal risks to respondents. The electronic research instrument comprised a cover page containing the study's information, precisely the scope of the topic, namely wearable activity trackers with its definition and an illustration to avoid confusion when responding to the items. An informed consent statement was embedded on the cover page to ensure ethical care towards respondents, assuring them that participation was voluntary and that they could withdraw at any point. The first set of responses aimed at gathering demographic information, followed by the second set, probed respondents about their background regarding WAT devices and brand preferences. Based on their preferred brand, participants had to respond to specific scaled items on a six-point Likert scale, where 1=strongly disagree and 6=strongly agree. A six-point Likert scale provides more pointed insights and improved guidance regarding consumers responding negatively and positively. In contrast, a neutral response on a five-or-sever-point scale cannot lead to actionable insights as with a six-point scale. These scales were adapted from previously validated research. They included the adapted attitude (5 items) and price/value for money (4 items) scales from Grace and O'Cass (2005), the adapted awareness scale (4 items) from Cheung et al. (2000), the adapted quality perception scale (4 items) from Besharat (2010), the adapted purchase intention scale (3 items) from both Grace and O'Cass (2005) and Besharat (2010).

The questionnaire information was captured on the data collection platform by the researchers, which was subsequently pre-tested by five experienced Marketing Management researchers to confirm content and face validity before collecting the data. Furthermore, the five perceptual scales have already been validated in the literature in the context of smart wearables with Cronbach Alpha values ranging from $r=0.81-0.92$, therefore validating its use in this investigation and concluding the pre-testing procedure.

DATA ANALYSIS

IBM's Statistical Package for Social Sciences (SPSS) version 28.0 was used to analyse the data. Analysis techniques comprised a Mahalanobis distance test to remove any multivariate outliers (Tabachnick & Fidell, 2013), frequency analysis, reliability and validity analysis, descriptive statistics and a one-sample t-test to determine the scale items' significance. The measurement instrument's reliability was determined by computing the Cronbach alpha (α) values for each scale and the overall scale to ensure internal consistency reliability, where values of 0.70 and above indicate acceptable reliability (Malhotra, 2020). Construct validity was confirmed by executing principal components analysis (EFA) using the varimax rotation. All statistical results are reported in the Tables and Figure 2 in the next section.

Addressing the main research issues in this study, a descriptive statistics analysis paired with the one-sample t-test was executed to determine the mean values of each factor and its significance regarding the sample's perceptions of branded WAT devices. Given that responses were recorded on a six-point Likert scale, mean values above a minimum of four were desirable. The level of statistical significance was set at $p < 0.01$, and given that the statements were measured on a six-point scale, the t-test test value was set at 3.5.

RESULTS AND DISCUSSION

Using a research company to collect the data automatically ensures that the intended 500 questionnaires are completed and eliminates the occurrence of missing data or responses. However, following the data cleaning process and performing a Mahalanobis Distance Test to eliminate multivariate outliers (Tabachnick & Fidell, 2013), 487 cases were viable for data analysis. This translates to a 97.4 percent success rate.

The results are reported by addressing the research gaps identified, as outlined below. Tables 1, 2 and Figure 2 address the first research problem, whereas Table 3 addresses the second research problem.

- Table 1 presents the sample profile of South African consumers who participated in this study
- Table 2 outlines South African consumers' wearable activity tracker ownership, brand preference and spending behaviour
- Figure 2 illustrates the South African samples' preferred WAT device features
- Table 3 reports South African consumers' perceptions of branded wearable activity trackers

To contextualise the study's findings, all preferences and perceptions reflect the opinions of the sample outlined below.

TABLE 1:

Sample demographic information

Cohort	f	%	Gender	f	%	Home language	f	%
Gen Y	316	64.9	Male	237	48.7	Afrikaans	35	7.2
Gen X	171	35.1	Female	249	51.1	English	194	39.8
Age			Other	1	0.2	IsiNdebele	10	2.1
18-26	116	23.8	Province of residence			IsiXhosa	42	8.6
27-36	200	41.1	Eastern Cape	25	5.1	IsiZulu	68	14.0
37-46	109	22.4	Free State	14	2.9	Sepedi	46	9.4
47-56	62	12.7	Gauteng	243	49.9	Sesotho	21	4.3
			KwaZulu-Natal	76	15.6	Setswana	24	4.9
			Limpopo	27	5.5	SiSwati	10	2.1
			Mpumalanga	16	3.3	Tshivenda	16	3.3
			Northern Cape	4	0.8	Xitsonga	18	3.7
			North-West	8	1.6	Other	3	0.6
			Western Cape	74	15.2			

The sample representing this study mainly was aged between 27 and 36 years (41.1%), followed by 18 to 26 years (23.8%), representing 64.9 percent of the Generation Y cohort. Further, 35.1 percent of the Generation X cohort's sample was aged between 37-46 (22.4%) and the least amount by 47 to 56-year-olds (12.7%). This distribution is appropriate following the wearable technology adoption trends by age, where this market is dominated by the 18-36 age category, namely the Gen Y cohort (Statista, 2020b), and increased adoption is projected among younger and older generations. Among the respondents, 48.7 percent were male, and 51.1 percent were female, resulting in an almost equal gender distribution, where all provinces in South Africa were represented. Most of the sample resided in the Gauteng province (49.9%), followed by KZN (15.6%) and WC (15.2%), with the least from the NC (0.8%). The dominating home language was English (39.8%), followed by IsiZulu (14.0%) and Sepedi (9.4%). African languages totalled 52.4 per cent, which aligns with South Africans' population profile. For the wearables market to progress and stakeholders to take advantage of the opportunities, it is vital to understand South African consumers' WAT device ownership, including the types of devices that will sell successfully, the brands that they prefer and are loyal to and especially the amount of money consumers are willing to spend to acquire such a device. As such, Table 2 outlines these findings.

TABLE 2:

South African consumers' wearable activity tracker ownership, brand preference and spending behaviour

Ownership	f	%	Brand choice	f	%	Max spend	f	%
Yes	251	51.5	Apple	87	17.9	0-999	141	29.0
No	236	48.5	Fitbit	49	10.1	1000-2999	183	37.6
*Type of device			Garmin	37	7.6	3000-4999	65	13.3
Fitness watch	240	49.3	Huawei	109	22.4	5000-9999	76	15.6
Fitness band	70	14.4	Jabra	2	0.4	10000-20000	22	4.5
Smart jewellery	61	12.5	Polar	8	1.6			
Smart clothing	60	12.3	Samsung	162	33.3			
HR-straps	26	5.3	Suunto	1	0.2			
Clip-on pedometer	25	5.1	TomTom	5	1.0			
			Wahoo	1	0.2			
			Xiaomi	17	3.5			

Notes: for all responses n=487, except for type of device – where n= 251

*Respondents marked all that applied to them -> represents the number of devices

Around the middle of 2022, this study reports that 51.5 percent or 251 respondents owned a WAT device. Should this be representative of the country's population, device ownership has improved significantly. Compared to data collected in 2017 and 2019, an increase in WAT device adoption is observed, with 5.8 percent ownership recorded for 2017 (Muller, 2019) and 47.8 percent in 2019 (Hattingh, 2020). The types of devices consumers own are crucial for manufacturers to comply with consumer demands. In this study, respondents could mark all device types they owned. Thus, the 251 respondents owned a combined 482 devices. Furthermore, in line with a recent study (Hattingh & Muller, 2022) and global preferences (Statista, 2022), wrist-based devices were the most popular type of WAT in this study, accumulating 310 smart wrist devices. Among the 251 respondents, 240 owned a fitness watch, and 70 had a fitness band. The types of WATs owned by 61 and 60 respondents were smart jewellery and clothing, respectively, followed by the minority ownership of 26 heart-rate straps and 25 clip-on pedometers.

The findings from this study indicate that smartwatch brands dominated the WAT device market by mid-2022, with Samsung at the top with a 33.3 percent share, followed by Huawei at 22.4 percent and Apple at 17.9 percent. As for dedicated fitness brands, Fitbit had a 10.1 percent share, followed by Garmin at 7.6 percent. In prior research (Hattingh, 2020), fitness trackers were the dominant choice, with Garmin identified as the brand leader. Other brands, such as Suunto, TomTom, Polar, Jabra, Wahoo and Xiaomi, needed more representation. The findings of Figure 2 explain possible reasons for the preferences towards smartwatch brands. That is, where dedicated fitness tracker brands offer more training and outdoor adventure-based capabilities, smartwatches have a delicate balance between basic functionality such as tracking steps and distance, measuring heart-rate data, and tracking sleep while allowing the user to receive smart notifications and make wireless payments.

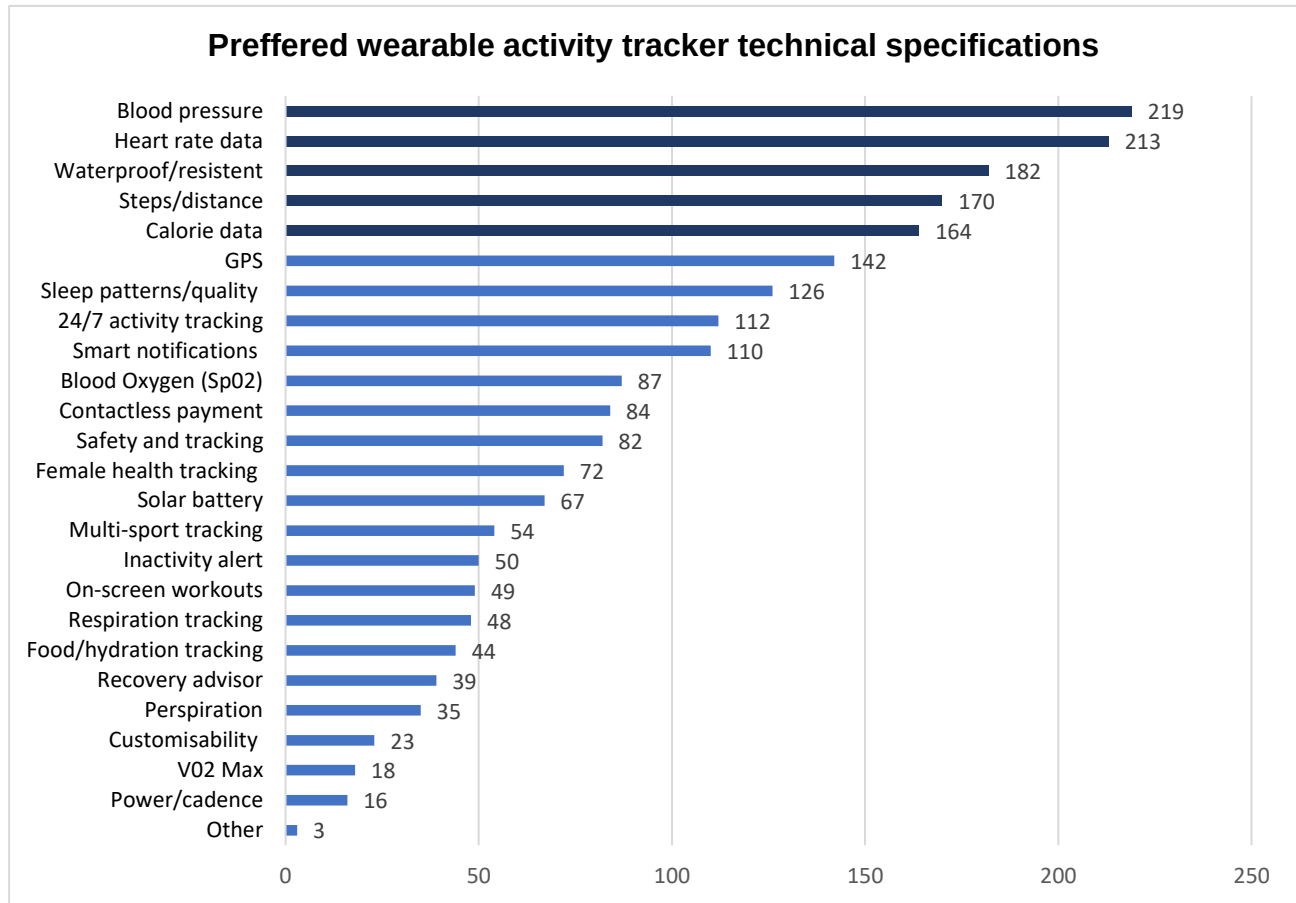
Regarding spending behaviour, combined, more than half of the respondents or 66.6 percent, were willing to spend up to R2999 to purchase a WAT device as a once-off investment, and only 13.3 percent of the sample were willing to spend between R3000 and R4999. The financial constraints resulting from the pandemic are clearly emphasised by the 29 percent of the respondents indicating they were unwilling to spend more than R999 on a WAT device. This can be attributed to consumers having less disposable income, given the rise of living costs, a decrease in spending on luxury goods and general economic conditions impacting their spending priorities. Or consumers needed to be convinced that purchasing a WAT is worth the money. Several marketing possibilities exist since 20.1 percent of this sample were willing to spend more than R5000 on a WAT device.

Figure 2 addresses the final aspect of the first research problem; reporting South African consumers' preferred WAT device technical features or specifications.

The advancements in technology offered WAT manufacturers and brands multiple opportunities to produce a variety of devices to serve various consumer needs and demands. To become pioneers and market leaders, brands innovated advanced features such as integrating solar panels to extend battery life and SpO2 sensors to measure blood oxygen levels, among other developments. This study addressed the specific features South African consumers prefer where respondents, from a list of 25, could select up to five desired features. As evident from Figure 2, a WAT device that, at a minimum, can measure the users' blood pressure and relay heart-rate data while being waterproof or resistant and tracking their steps, distance and calorie expenditure will appeal to South African consumers. These were the top five preferred features, with 164 to 219 respondents preferring these features. Device manufacturers should not ignore the other features, which appeal to more than 100 or a fifth of the sample, namely having GPS tracking ability (142), measuring sleep patterns and quality (126), being able to track movement 24/7 (112) and access to smart notifications (110) sent from their smartphones. Other notable features include measuring users' blood oxygen levels, making contactless payments, safety and tracking features, female health tracking, and an integrated solar panel. As mentioned, a demand for specific features such as blood pressure, heart rate and sleep monitoring, blood oxygen levels, and general movement behaviour became a unique selling point for these devices, given the usefulness of these metrics during the pandemic, most likely afterwards, too.

FIGURE 2:

South African consumers' wearable activity tracker feature preferences in a post-pandemic context



Source: Author's own

Knowing consumers' preferred device features is insufficient to ensure the WAT brand's progress in the South African market. Therefore, the second research problem addressed in this study was examining South African consumers' perceptions of branded WAT devices in a post-covid context, specifically their brand and device awareness, attitude, quality perception, price value for money and purchase intentions. These findings are outlined in Table 3.

The 20-item instrument delivered an alpha value of 0.885, with the alpha values for the five factors ranging from (0.856-0.910), as shown in Table 3. These values confirm the instrument's internal consistency reliability. Next, the data were assessed to establish factorability through the Kaiser-Meyer-Olkin (KMO) and Bartlett's sphericity tests. Both tests returned satisfactory values [KMO = 0.954, chi-square Bartlett test = 7418.033 (df = 190), $p = 0.000$], thus validating the data's appropriateness for exploratory factor analysis. As such, principal components analysis, using the varimax rotation, was subsequently performed on the 20 scaled items, from which five latent factors were extracted. The factor loadings vary from 0.539 to 0.821, and communality values are between 0.631 to 0.864, where the five factors explain 76.41 percent of the total variance about South African consumers' perceptions of WAT brands. With the factorability of the data established, further analysis was appropriate.

TABLE 3:

South African consumers' perceptions of branded wearable activity trackers

Factors	Mean	Std. dev.	t-value	p-value	α	Factor loadings
Brand awareness	4.70 $\pm$ 0.97		27.171	0.000	0.856	0.539-0.811
Attitude	5.02 $\pm$ 0.93		36.272	0.000	0.883	0.746-0.806
Quality perception	4.96 $\pm$ 0.87		37.108	0.000	0.881	0.627-0.746
Price/value for money	4.81 $\pm$ 0.93		31.141	0.000	0.897	0.737-0.821

Purchase intention	5.04 ± 0.96	35.311	0.000	0.910	0.656-0.718

Notes: Statistically significant at $p < 0.01$

With scale reliability and validity established, descriptive statistics combined with a one-sample t-test were performed to determine the significance of the five factors. Based on a six-point Liker scale, this sample of South African consumers has a statistically significant positive attitude (mean = 5.02 ± 0.93; $p=0.000$) towards their preferred brand and its WAT devices and are likely to purchase such a device soon (mean = 5.04 ± 0.96; $p=0.000$). These findings are favourable for the continuity of WAT brands in the country. Further emphasising the progression of the WAT market and its diffusion in South Africa is the samples' statistically significant branded device awareness (mean = 4.70 ± 0.97; $p=0.000$). While the sample demonstrated awareness of branded WATs, a positive attitude and likely purchase intent of branded WAT devices, the possibility of this technology prospering in the market depends on consumers' quality and price/value for money perceptions. In terms of quality perception (mean = 4.96 ± 0.87; $p=0.000$), this study's sample perceived branded WAT devices as reliable in terms of the metrics the device produces, that their branded WAT is technically advanced and unique compared to other brands, while also offering good support service. Furthermore, this sample perceived their WAT brand's devices as somewhat reasonably priced, providing value for money, being a good product for the price and being cost-effective, resulting in a statistically significant price/value for money perception (mean = 4.81 ± 0.97; $p=0.000$).

IMPLICATIONS AND RECOMMENDATIONS

The findings of this study have various theoretical, practical and managerial implications, as outlined below according to each research problem addressed. All brands who aim to pioneer innovative WAT devices, brands targeting the two markets, namely smartwatch and fitness tracker users, and those who want to grow their market position and progress in this competitive environment should consider the following points. For the first research problem addressed, namely establishing South African consumers' post-pandemic device and types of device ownership, brand choice, spending inclination and technical features or specification preferences:

1. Brands such as Samsung, Huawei and Apple dominate the smartwatch market, where Garmin and Fitbit the fitness tracker market. For either brand category leader to increase their position in the opposite market, they should manufacture or increase advertising for the devices in those categories. For example, Samsung, Apple and Huawei must manufacture heart-rate straps, fitness bands, foot pods, cycling computers and smart clothing that their loyalist can use, paired with their existing devices. Garmin, Fitbit and Polar must add a product line to feature dedicated smartwatches with features and capabilities to match the leading smartwatch brands.
2. Point 1 will address the diffusion of other device types besides wrist-ware (see table 2), where if these brands appeal primarily to consumers aged 18-36 years but also convert different generations, targeting all genders, and race groups, particularly in language they can better understand the marketing messages in, the possibilities exist that more South Africans will become aware of these devices, its usefulness and therefore an increased likelihood of conversion.
3. This study reported that South African consumers, albeit the respondents, are mainly willing to spend up to R2999 to acquire a device. WAT brands should capitalise on this finding and manufacture a broader range of devices within the R500-R2999 price range, with clip-on pedometers being an excellent starter device in the lower price range to fully fledged flag-ship devices (with most of the top five features (Figure 2) integrated, in the higher end of this price range. Yet, great potential exists in upper-class markets, as reported that 20.1 percent of the respondents will pay premium prices for devices. As a fitness and hybrid brand, Garmin has taken advantage of this segment by pioneering the first devices with solar charging capability.
4. Last, in line with the preferred price point, WAT brands should manufacture devices that can measure heart rate and sleep data, steps and distance, provide calorie expenditure and have a GPS embedded. While consumers prefer the ability to measure blood pressure, no watch on the market can do so without an additional blood pressure machine. To counter this limitation, having sought-after and pioneering features such as blood oxygen measurement, 24/7 activity monitoring, and smart notifications will keep consumers content at the R2999 price point. Although

there are many opportunities, WAT brands and marketers must capitalise on convincing consumers to spend more money to get enhanced devices that can do more.

Below are practical points based on the second research problem addressed, namely attesting to South African consumers' awareness of this technology after the pandemic, their attitudes and purchase intentions, and whether they perceived WAT devices as being high-quality products and providing value for money:

5. WAT brands, manufacturers, resellers and marketing professionals should increase their efforts towards improving South African consumers' awareness of WAT devices, which was too low, especially after the pandemic. These stakeholders should collaborate with opinion leaders like healthcare personnel (doctors, nurses, pharmacists, athletes and community leaders) with a far wider reach and use them as a trusted promotional vehicle. If these opinion leaders urge consumers to use WAT devices to keep track of their health, more South Africans will likely convert. Using influencer marketing to target younger generations could have the same outcome.
6. The stakeholders mentioned in point 5 should capitalise on the fact that South African consumers have an overwhelmingly positive attitude toward WAT devices and a high probability of purchasing such devices. As such, marketers should use aggressive marketing tactics, including lead generation through pop-up ads, paid ads, content marketing, and SEO marketing, while closely monitoring the conversion funnel and taking every opportunity to execute remarketing and retargeting strategies.
7. To counter the lower-than-desired findings based on consumers' branded WAT device quality perception and price/value for money, WAT brands should first ensure they manufacture devices consumers perceive as having exclusive features that they can only get from their brand, that these devices are technically advanced in terms of the metrics it can produce and that the offer excellent support services to ensure users get the most out of their experience. Further, while keeping the latter suggestions in mind, WAT brands should ensure their devices are reasonably priced in relation to what the consumer obtains from their use or adapt their marketing tactics to convince consumers they get more than they pay for to ensure they stay healthy.
8. Academics can benefit from this study's findings by confirming five specific behavioural perceptions statistically significant in the post covid South African context. They can build on these perceptions by adding factors such as loyalty or the significance of word-of-mouth influence while also considering validating a predictive model using these foundational factors, which will provide deeper insights to stakeholders in the industry.

CONCLUSION

Evidently, this study's findings revealed that the wearable activity tracker and smartwatch markets are highly likely to succeed in post-covid South Africa. From this study's findings, WAT brands, manufacturers, resellers, marketing professionals, and, to some extent, academics can capitalise on the knowledge that South African consumers use wrist-based devices, mostly smartwatches from Samsung, Huawei and Apple, and fitness devices from brands like Garmin and Fitbit, who are willing to spend R2999 on a device, with a smaller portion of consumers willing to spend up to R20 000 on a device. These consumers will purchase WAT devices that can measure blood pressure, heart rate and sleep data, determine steps, distance and calorie expenditure, is waterproof, can measure activity 24/7, has smart notification functionality and has a GPS. These same stakeholders can adapt their marketing strategies to increase South African consumers' awareness of these devices and consider their positive attitude and likely purchase intent while using more aggressive marketing tactics to change consumers' perceptions of these devices not being of high quality and not offering value for money spent. The departure point from this study is to validate a predictive model where WAT brands can predict South Africans' purchase behaviour based on specific factors, such as awareness, attitude, quality perception, loyalty, brand trust, personality and the influence of WOM. These future findings have several crucial implications of their own.

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Factors that influence student choice to study at a Private Higher Education Institution in South Africa

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ABSTRACT

The competitive private higher education sector in South Africa is presented with unique growth opportunities due to the limited student capacity available at public universities to meet the needs of students aspiring to obtain a higher education qualification. The purpose of this study was to identify the factors that influence a student's choice of private higher education institution (PHEI) in South Africa. The study followed an interpretivist philosophy and an inductive approach, whereby a qualitative method was used to collect data using semi-structured interviews. The study found six factors that influence a student's choice of PHEI, namely: Reputation/ Status; Education Quality; Awareness; Student Extracurricular Activities; Student Interaction and Bridging Course. Managing these factors could allow PHEIs to set up a well-coordinated and competitive strategy to attract students. To this effect, practical recommendations were proposed to PHEIs on how to successfully manage these factors to ultimately increase their competitive advantage.

Keywords: competitive advantage, marketing mix, private higher education, student choice

INTRODUCTION AND BACKGROUND TO THE STUDY

Private higher education institutions (PHEIs) come in various sizes and discipline-specific product offerings, which influence the nature of qualification offerings, the size of institutions, facilities, and amenities available, and relevant student support services (CHE, 2018). The higher education sector, especially the private sector, is highly regulated with stringent requirements established, implemented, and monitored by the Council of Higher Education (CHE) (Pramjeeth, Engelbrecht, Mooney and Ramgovind, 2022; CHE, 2018). PHEIs can only offer and confer qualifications accredited by CHE and registered by the South African Qualifications Authority (SAQA) on the National Qualifications Framework (NQF) (CHE, 2021). The private higher education (PHE) sector is responsible for 17.9% of the total student population enrolled at higher education institutions (HEIs) across South Africa (DHET, 2023). The number of students in PHEIs is gradually increasing due to the lack of capacity at public higher education institutions to meet the high demand for higher education (Tankou epse Nukunah, Bezuidenhout and Furta, 2019). Given the annual increase in students studying at PHEIs, this sector has become increasingly competitive with students considering the total product offering and value offering of PHEIs (Tankou epse Nukunah *et al.*, 2019; Dirkse van Schalwyk, Davis and Pellissier, 2013).

HEIs, in general, play a pivotal role in the nurturing and development of the knowledge and core competencies of graduates to contribute actively and positively to the economy. The focus of PHEIs is typical of business; the student is viewed as a client through the provision of increased student-lecturer engagements, higher student expectations, offering extensive student support programmes, and promoting collaborative learning, to name but a few (Stander and Herman, 2017; Baumgardt, 2013). Tankou epse Nukunah *et al.* (2019) agree with the afore and further note that PHEIs have higher programme completion rates, niche programme offerings, innovative teaching and learning practices, as well as agile business decision-making, which creates a competitive advantage in the education sector.

PROBLEM STATEMENT AND OBJECTIVE OF STUDY

In addition to the complex and highly regulated environment in which PHEIs in South Africa function (Stander and Herman, 2017; Dirkse van Schalwyk *et al.*, 2013), such institutions are exposed to intense competition that affects their survival (Tankou epse Nukunah *et al.*, 2019; Dirkse van Schalwyk *et al.*, 2013). Taking into account this increasingly competitive landscape, it is essential to understand the factors that influence a student's choice to study at a PHEI in South Africa. Unfortunately, research on such factors in a South African context is limited. Exploring, understanding, and effective management of such factors can be used as a tool for marketing, strategy, and overall institutional decision-making, to ultimately increase the competitive advantage of PHEIs. Given the research problem, the primary objective of this study is to identify the factors that influence a student's choice to study at a PHEI in South Africa.

LITERATURE REVIEW

The regulators of the South African higher education sector promulgate that education in South Africa must improve and establish the concept of lifelong learning to positively contribute to resolving social and economic challenges faced by South Africans (SAQA, 2023; Bezuidenhout, de Jager and Naidoo, 2013). This notion of lifelong learning and its contribution to solving the challenges in South

Africa can be achieved through “*a transformed, equitable and quality higher education and training system*” (CHE, 2023, para. 1). In the case of PHEIs, they are often the preferred choice of students based on the product offering and value proposition offered to prospective students (IEASA, 2019). This has been confirmed by the Minister of Higher Education and Training, Dr Blade Nzimande, who noted that the quality of higher education in South Africa is one of the key contributing factors to attract students from the Southern African Development Community (SADC) to South Africa (IEASA, 2019). With the increased demand for higher education (Singh, 2017) and subsequently the

competitive landscape, it is important for PHEI to understand the factors that influence a student's choice to study at a PHEI. The marketing mix can provide substantial information on these factors.

The marketing mix originally presented by Neil Borden in 1953 has subsequently been used by marketers to review and define specific issues that impact the marketing of tangible (product) and intangible (service) offerings (Khorsheed, Abdulla, Othman, Mohammed and Sadq, 2020; Borden, 1964). The marketing mix is a combination of seven controllable constructs, namely product, price, promotion, place, people, physical environment, and process, that enable institutions to satisfy the needs of the target market (Kotler and Keller, 2021). Although there was initial hesitation to amalgamate marketing with education, as it was considered shameful to call students 'customers', there has been an increase in acceptance of marketing concepts such as consumer analysis, marketing research and market segmentation being adopted by educational institutions (Basyouni, 2019). It is evident that the marketing mix is a valuable strategy that enables education institutions to gather insightful information on the factors that influence a student's choice of HEI (Nuriadi, 2021; Syam, Sembiring, Maas and Pranajaya, 2019; Kwang, 2019; Seehanate, 2017; Al-Fattal, 2010).

Within this context, product refers to the programme offering (i.e., qualifications) of the HEI to meet the demand of industry and employment prospects, while price refers to the amount of money a student is expected to pay to receive education (i.e., through financial aid options such as fees, loans, scholarships, or grants to name a few). Place refers to HEIs geographical location, while promotion refers to the ability of the educational institution to communicate with the public regarding public relations, advertising, direct marketing, sponsorships, personal selling, and sales promotion. Process refers to an educational institution's administrative tasks that facilitate operations, while people include administrative and skilled national and international teaching staff that are instrumental in the delivery of the service. Lastly, physical facilities are often the first consideration of students and refer to the built environment comprising technology used, the cleanliness of lecturer rooms and the ablution facilities. Table 1 presents a global summary of studies conducted on students' choice when selecting the HEI, with clear evidence of how elements of the marketing mix have been incorporated in previous studies.

TABLE 1:
SUMMARY OF STUDIES REGARDING STUDENT CHOICE OF HEI

Authors	Country	Empirical findings of factors found to influence student choice
Moorthy, Johanthan, Hung, Han, Zheng, Cheng, and Yuan (2019)	Malaysia	• Product • Place • Price • Promotion • People • Process • Physical evidence
Haron, Hamid, Jamaludin and Azan (2017)	Malaysia	• Financial aid • Promotion • Social Influences

Mishra and Gupta (2021)	Oman	• Location • Reputation and Image • Academic programmes offered • Quality of Academic Staff • Accreditation of College/University • Foreign university partner • Advertising through various media platforms • Career goals • Financial capacity
Khan, Zia-ur-Rehman and Khan (2016)	Pakistan	• Degree of demand by the employer in the market • Quality of teaching • Quality of tertiary education • Career prospects
Baliyan (2016)	Botswana	• Advice-seeking • Employment Prospects • Campus life
Rudhumbu, Tirumalai and Kumari (2017)	Botswana	• Academic programmes • Image and reputation of the institution • Quality of Educational Facilities
Bezuidenhout, de Jager and Naidoo (2013)	South Africa	• Security/safety conditions on campus • Employment Prospects • Well-equipped computer facilities
Singh (2017)	South Africa	• Branding • Cost • Accessibility • Quality

Reference: Authors' construction

Based on the international studies highlighted in Table 1, it can be established that the marketing mix is a valuable tool to use as the basis for identifying the factors that influence a student's choice to study at a PHEI. As such, the various aspects of the marketing mix have been used in the current study to inform the main research question. The international studies indicate that the marketing mix plays an important role in a student's choice when considering HEIs. Besides the Bezuidenhout *et al.*, (2013) and Singh (2017) studies, there are limited empirical studies focusing on the factors influencing a student's choice to study at a HEI in a South African context.

RESEARCH DESIGN AND METHODOLOGY POPULATION AND SAMPLE

The primary objective of this study was to identify the factors that influence a student's choice to study at a PHEI in South Africa. In this qualitative study, an interpretivist philosophy and an inductive approach to theory development were adopted, allowing the researchers to obtain an in-depth understanding of the factors influencing a student's choice to study at a PHEI in South Africa.

For this study, the target population can be described as all first-year students studying at a PHEI in South Africa. No complete database of these students was accessible. Therefore, a sample that represents the population was chosen. In this instance, a total of five focus groups were established comprising first-year students studying at a selected PHEI in South Africa, Pretoria. These students participated in the discussion on the factors that influenced their choice to study at a PHEI. Students were selected by convenience sampling. More specifically, first-year students from the selected PHEI in South Africa, Pretoria, who were willing and available to participate in the research, were requested

to be part of the focus groups. A total of 39 first-year students from various disciplines (e.g., commerce, law, education, and information technology) participated in the five focus groups hosted in person on the campus of the selected PHEI.

The nature of the sample allowed the researchers to gain a holistic perspective on the factors that influence a student's choice to study at a PHEI. The rationale for only selecting first-year students to participate in this study is based on their most recent experience of having to choose the most suitable higher education institution that meets their needs.

DATA COLLECTION

A semi-structured interview schedule was developed to gather data from the students. The five focus group interviews were scheduled over two days, with each focus group interview allocated 90 minutes. Each student completed a demographic survey as part of the focus group interview to establish descriptive statistical details on the demographic profile of the participating students. All focus group interviews were recorded and transcribed together with the notes made by the facilitator during the focus group discussions.

DATA ANALYSIS

In terms of data analysis, a content analysis was performed. The latter enabled the researchers to identify specific patterns in the collected data across the various focus groups regarding the factors that influence a student's choice to study at a PHEI (Onwuegbuzie, Dickinson, Leech and Zoran, 2009). More specifically, the transcription of the interviews with the focus groups was coded and key themes were identified. A total of six themes were identified that influence a student's choice to study at a PHEI. Theoretical saturation was achieved, as the content analysis evidenced the repetition of similar responses throughout the focus groups (Onwuegbuzie *et al.*, 2009).

Ethical clearance was obtained for this research, while the participants were ensured that their personal details would be treated confidentially and that the recordings would be stored safely. The participants were also informed that a report on the research findings could be made available upon request. Participants were required to complete an informed consent form that explained the purpose of the research and how the data will be used for future research projects.

EMPIRICAL RESULTS DEMOGRAPHICS

Most of the participants were between 18 and 25 years of age (80%) and listed Gauteng as their home province (90%). The majority were unemployed (89%), which was expected to some extent, as the participants were first-year students studying at a selected PHEI in Gauteng. The demographic findings further revealed that most students' studies are funded through family support (59%), with another 20% self-funding their studies, and the remaining 21% are made up of bursaries, student loans, and other. Regarding key disciplines, most of the participants in this study were enrolled in programmes where Law (71%) was the major discipline, followed by the disciplines of Commerce (13%), Information and Communication Technologies (5%), and Education (11%).

CONTENT ANALYSIS

As part of the data analysis process, participants' responses were coded and categorised, revealing six unique themes (hereafter referred to as factors) that influence a student's choice to study at the selected PHEI, namely: Reputation/Status; Education Quality; Awareness; Student Extracurricular Activities; Student Interaction and Bridging Course. Overall, based on the perceptions of the

participants, Reputation/Status was the most important factor (i.e., highest frequency rating) regarding a student's choice to study at the PHEI, with 30% of the students alluding to this factor during the focus group discussions. This factor was followed by Education Quality (18%), Awareness (18%), Student Extracurricular Activities (15%) and Student Interaction (14%). The factor, Bridging Course, had the lowest frequency rating of 5%. For comparative reasons, an analysis was also done on the frequency ratings of the identified factors per programme. Table 2 provides a summary of the frequencies of various themes (i.e., factors) per programme offered at the PHEI.

Regarding the most important factors that influence a student's choice to study at the selected PHEI, the findings revealed that the opinions of the participants in the Commerce discipline were different compared to the participants in the Education, Law, and Information and Communication Technologies (ICT) disciplines. Education Quality and Awareness were ranked as the most important factors by participants from the Commerce discipline, compared to the participants in the other disciplines, who classified Reputation/Status as their most important factor.

Participants from the Commerce discipline and Law Degree highlighted the factor, Bridging Course, as the least important on a student's choice of PHEI. Of all the factors identified by the participants in the ICT discipline, Student Interaction was deemed least important in terms of influencing a student's choice to study at a PHEI. Similarly, participants from the Higher Certificate in Law regarded Student Interaction as the least important factor in relation to a student's choice of PHEI, while participants from the Education discipline considered the factor of Student Extracurricular Activities as the least important. It is worth noting that the Bridging Course factor is only relevant and of importance to the Commerce and Law disciplines. The PHEI does not offer Bridging Courses in the ICT and Education disciplines.

Participants from ICT, Education and Law (both Higher Certificate and Degree) agree on the most important factors that influence a student's choice to study at a PHEI. Compared to the participants from the Commerce discipline; their different views, one could argue, stem from a social sciences perspective and not a commercial pragmatic stance.

TABLE 2:

FACTOR FREQUENCIES PER PROGRAMME OFFERING

	Bridging Course	Student ExtraCurricular Activities	Reputation / Status	Awareness	Education Quality	Student Interaction
*Higher Certificate in Commerce	7%	14%	16%	22%	22%	19%
*Diploma in ICT	**	26%	43%	23%	6%	3%
*Education Degree	**	6%	37%	23%	23%	11%
*Higher Certificate in Law	11%	26%	28%	13%	17%	6%
*Law Degree	2%	13%	34%	19%	13%	19%

Reference: Authors' construction

* Programme names have been changed to adhere to the ethics clearance requirements obtained from the institution.

** Not Applicable

DISCUSSION OF FINDINGS

This study aimed to identify the factors that influence a student's choice to study at a PHEI in South Africa. Each of the six identified factors will be discussed in the subsequent sections.

The factor Reputation/Status was identified by assessing the unique codes emanating from the transcription of the focus group interviews. The PHEI has a good reputation within the market as it turns out to be highly recommended by the participants' network. Participants also view the PHEI as having various professionally recognised programmes, and that it engages with professional bodies that accredit and support these programmes offered by the PHEI. Regarding location, participants view the selected PHEI to be situated in a good location; on the outskirts of a neighbourhood, which impacts on the availability of public transport to and from the campus. Despite the lack of public transportation, the campus presents a welcoming environment for students and offers a relaxing and modern environment for them to continue their studies. All of these aspects mentioned above have a positive influence on the reputation/status of the PHEI, which subsequently was a factor that influenced student choice of PHEI. It has been noted that most of the participants enjoy the fact that there is adequate safety with no interruptions by students such as strikes on campus. An interesting aspect originating from the data was the favourable view on class schedules that allow flexibility for students to potentially work part-time in the mornings or afternoons. This was another aspect influencing a student's choice of PHEI, as it allows them to have part-time jobs, or to use their free time to relax, study, and participate in sports or cultural activities.

A second factor, Education Quality, was identified based on an evaluation of the unique codes in the data as a factor that influenced student choice of PHEI. To this effect, participants appreciated the quality education experience being advertised through the institution's personalised approach to in-depth instruction combined with a career-oriented education. Participants indicated the importance of the library on campus that supports education quality. Education quality is reliant on library support and services as alluded to by the participants.

Awareness was the third factor identified by participants as influencing their choice to study at the selected PHEI. According to participants, family/friends and word-of-mouth remain the most important ways to create awareness among prospective students about the portfolio of qualifications to study at the PHEI. Other formats identified by participants to create awareness include career expos or advertisements, personal online research, and social media. These elements of awareness were identified by participants as influencing their choice of study at the selected institution.

A fourth factor, namely Student Extracurricular Activities, was identified by assessing the unique codes emanating from the transcription of the focus group interviews. The PHEI promotes and supports sports activities that are in high demand and for which facilities are available within the geographical location of the site. Besides sporting activities, facilities and infrastructure, the availability of cultural activities was another important aspect identified by participants that influence their choice of PHEI.

Student Interaction was the fifth factor identified in this study that could influence a student's choice of PHEI. Participants indicated that upon inquiry, administrative services such as reception and student support personnel, adequately facilitated the sharing of institutional information, qualification and admission requirements, amenities as well as the support provided to students throughout their academic journey.

The last factor, Bridging Course, was a unique contribution and factor identified in this study as it was only linked to the Commerce and Law disciplines. The selected PHEI offers a variety of higher certificate and diploma programmes that, once completed, enable access to Bachelor programmes. This was favourably viewed by participants as a factor that influenced their choice to study at the selected PHEI. Participants from the law disciplines promoted the benefits of being able to complete a Higher Certificate in Law¹ before a Law Degree as it enables them to obtain a firm foundation within the law context. The completion of the Higher Certificate places students in a better position to cope and manage their studies, compared to those candidates who have not completed a Higher

Certificate.

PRACTICAL AND THEORETICAL CONTRIBUTIONS

This study advances the literature on marketing within the PHE context in South Africa. Effectively, this study addresses the gap in the current literature on student choices within a PHE context that has been insufficiently explored. To this effect, the findings of this study revealed several factors that influence a student's choice to study at a PHEI in a South African context.

In addition to the theoretical contributions, several practical recommendations can be proposed for PHEIs in South Africa concerning the factors influencing a student's choice of PHEI. For example, PHEIs should consider increasing promotional events where professional bodies from the legal, commercial, and educational sectors are invited to engage with prospective students from various disciplines concerning future career possibilities. In addition, institutions considering expanding campuses should consider the location of these sites, specifically the accessibility to public transport and the safety of the sites. Institutions should be cognisant of students' circumstances and therefore the flexibility of class schedules should be considered to allow students who are employed the opportunity to study while working.

¹ Changed name of programme to align with ethics clearance requirements from the institution.

Regarding education quality, PHEIs should employ suitably qualified and experienced employees who contribute towards promoting a quality educational experience to students. In addition, PHEI should provide a learning environment or study facilities, such as a library, with adequate student support services that will ensure a quality learning experience.

In view of the awareness of a PHEI, students are likely to promote the institution amongst peers, family, and professional networks. It is therefore important that PHEIs offer staff adequate customer engagement training to ensure that all prospective and current students have a positive experience at the PHEI.

PHEIs should also consider, where possible, introducing sports activities that resonate with the prospective student's needs and the geographical location of the campus. In addition, student social clubs with an emphasis on cultural activities relevant and unique to the region and the specific campus should be considered. Concerning facilities and infrastructure, PHEIs should provide adequate space for social activities and learning engagements within the communal areas on the campus.

Student support is another aspect that PHEIs should prioritise. In this case, continuous communication should be offered to students during the application and registration process in a professional, adequate, and effective manner. A multifaceted approach should be adopted to develop staff interpersonal skills, effective communication, and quick resolution of student queries. Implementing good training and development programmes for customer service personnel could positively impact the experience of prospective students when interacting with campus staff upon initial inquiry on the institution's product offerings.

PHEIs should further consider offering relevant bridging courses where possible to promote access to further studies. Besides the availability of bridging courses, awareness of such courses must be created through the training of student advisors and marketers. The student advisors and marketers of PHEIs must be knowledgeable about the institution's product offering such that when they engage with prospective students during the registration process, informed decisions can be made by students.

Considering the proposed recommendations above, it is evident that the marketing mix elements such as product, promotion, place, people, physical environment and process, could be strategically utilised by PHEIs to manage the factors that influence a student's choice of PHEI. In this instance, the factors identified in this study (i.e., Reputation/Status; Education Quality; Awareness; Student Extracurricular Activities; Student Interaction and Bridging Course) can be linked to the elements of the marketing mix. An interesting finding was that students did not identify price as a factor that influences their choice of PHEIs. A possible reason for this finding is that most students' studies are funded through family support (59%), with another 20% self-funding their studies and the remaining 21% are made up of alternative funding options such as bursaries and student loans.

LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

Although this study makes a valuable contribution to PHEIs on the factors influencing a student's choice of PHEI, certain limitations can be identified. For example, although the findings of the study can be generalised to some extent, this must be done with caution, given the small sample size and non-probability sample (i.e., a selected PHEI based in Pretoria, South Africa) that was used. Moreover, the opinions and perceptions of participants could introduce a degree of response bias into the findings.

In terms of future studies, researchers could empirically test the factors identified in this study using a quantitative methodology among a larger sample size. Future researchers could also investigate whether the factors that influence a student's choice of PHEI differ across students' disciplines and faculties (i.e., fields of study). Although it was not the purpose of this study, the current study presented a limited discussion of how participants' perceptions from various disciplines differ concerning the factors influencing their choice of PHEI. A comparative study between private and public HEIs is worth exploring in relation to the factors that influence a student's choice of learning institution. Finally, a longitudinal study on the factors that influence a student's choice of PHEI is another potential study that could provide insights into different trends in students' choices. For instance, it would be worthwhile to investigate whether different factors influence a student's choice of PHEIs over time and the possible reasons in this regard.

CONCLUSION

The purpose of this study was to identify the factors that influence a student's choice of a PHEI in South Africa. The study provided an understanding of contemporary student choice while creating a platform to understand future needs, given the dynamic South African higher education landscape. This study was qualitative in nature and adopted an interpretivist philosophy and an inductive approach to the development of theory. Data were collected through semi-structured interviews with first-year students at a selected PHEI in Pretoria to identify the factors that influence a student's choice of PHEI. Content analysis of the collected data revealed six unique factors that influence a student's choice to study at a PHEI. Management of these factors could allow PHEIs to set up a well-coordinated and competitive strategy to possibly attract students and make the PHEI a student's first choice of study institution. To this effect, practical recommendations were proposed to PHEIs on how to successfully manage these factors to ultimately increase their competitive advantage.

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Exploring the relationships among brand experience, customer-perceived value and brand strength in the South African e-commerce industry

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ABSTRACT

Despite significant growth, it remains difficult for many South African e-commerce retailers to develop a competitive advantage amidst increased competition. Effective brand management, utilising brand experience, customer-perceived value (CPV) and brand strength, could potentially enhance a company's competitive advantage. This study proposes a relational model between brand experience, CPV and brand strength that could potentially be used to develop appropriate brand strategies, enhancing competitive advantage. A self-administered online questionnaire was used to collect data from customers of one e-commerce retailer in South Africa. Existing scales on brand experience, customer-perceived value (CPV) and brand strength were utilised to develop the questionnaire. A total of 256 responses were used to analyse the data, using covariance-based structural equation modelling. The results showed a statistically significant relationship between brand experience, CPV and brand strength. The results suggested that e-commerce retailers could use these constructs in a more focused way to develop brand strategies to enhance their competitive advantage.

KEYWORDS: Brand experience, brand strength, customer-perceived value, e-commerce retail, South Africa, brand strategies

INTRODUCTION

Over the last decade and especially during the COVID-19 pandemic, the e-commerce industry experienced significant growth globally and in South Africa (Atulkar & Kesari, 2019; Bhatti et al., 2020), leading to increased competition among online retailers. Despite a total revenue of \$1.9 billion in 2020, equating to a compound annual growth rate (CAGR) of 27.4% between 2016 and 2020 (Marketline, 2021), the South African e-commerce penetration remains low by global standards. However, the expectation is that the number of online shoppers will triple over the next few years (Fitch Ratings, 2021). To attract these potential online shoppers and retain current shoppers, South African online retailers have to consider the relationship between brand experience, CPV and brand strength (Brakus et al., 2009; Hennigs et al., 2013; Tzavlopoulos et al., 2019; Wiedmann et al., 2018) in managing their brands (Chiu et al., 2021). Brand management through the relationship between brand experience, CPV and brand strength could lead to companies' competitive advantage and contribute to business success (Beig & Nika, 2019).

LITERATURE REVIEW AND PROBLEM INVESTIGATED

Brand experience (a behavioural consumer response that is evoked by brand-related stimuli), CPV (the value perception of consumers about a brand), and brand strength (the association a consumer has towards a product) are essential factors influencing brand success (Brakus et al., 2009; Chaudhuri, 2006; Hennigs et al., 2013; Sweeney & Soutar 2001). Although extensive research has been conducted on brand experience, CPV and brand strength globally (Hennigs et al., 2015; Hong Quan et al., 2020; Wiedmann et al., 2018), research on the relationship between these three variables in the context of a retailer in the e-commerce industry in South Africa is lacking (Safa & Von Solms, 2016). This study investigated whether a relationship between these constructs exists in the South African e-commerce context, as seen from a customer perspective. Results from this study

could assist managers in managing aspects of their branding strategy to enable successful brand management in the context of increased competition.

E-COMMERCE IN CONTEXT

E-commerce or online retail can be described as the use of electronic networks, the internet or mobile or digital technology to create a successful exchange between buyers and sellers (De Klerk & Kroon, 2005). Two types of e-commerce retailers exist, namely 'pure play' and 'omnichannel' retailers. Pure play e-commerce retailers only sell products and services using their online shopfront, while omnichannel e-commerce retailers use both online and physical store fronts (Ritchie, 2020).

E-commerce has matured into a strong industry, showing increased annual sales. Globally, e-commerce has been supported by the lowering of trade and communication barriers and is regarded as a low-cost way to conduct business transactions. Several factors, such as ease of use, usefulness and enjoyment, have stimulated significant growth in the industry (Atulkar & Kesari, 2019). E-commerce adoption in South Africa has allowed many companies to grow their presence in the market, but many others still rely on a traditional sales approach, which hampers their growth (Johnson & Iyamu, 2019). Three main e-retailers compete in the e-commerce market in South Africa, namely takealot.com, Loot.co.za and Everyshop (FitchSolutions, 2021).

Brand experience

Brand experience refers to the cognitive, sensory, affective and behavioural responses of a customer after being exposed to brand-related stimuli. Brand experience can contribute to customer satisfaction and brand loyalty and can be described as the delivery of the brand promise to customers (Iglesias et al., 2011; Khan & Rahman, 2015).

Conducting five separate studies, Brakus et al. (2009) developed a brand experience scale to measure the level of brand experience evoked by a brand. The scale has been used in a variety of studies (Dirsehan & Çelik, 2011; Ishida & Taylor, 2012; Khan & Rahman, 2015; Nysveen et al., 2013; Pallant et al., 2022; Wiedmann et al., 2018), and slight amendments to the scale have been suggested by some of these authors.

The brand experience dimensions suggested by Brakus et al. (2009) were used in this study. The affective dimension refers to feelings and emotions evoked in the consumer by the brand (Pallant et al., 2022; Santini et al., 2018). The behavioural dimension refers to a customer's physical experience when interacting with a brand (Brakus et al., 2009; Dirsehan & Çelik, 2011). The sensory dimension refers to stimulation of the five senses of a customer (Dirsehan & Çelik, 2011; Pallant et al., 2022). The intellectual dimension represents the consequence of the cognitive associations linked to the brand (Brakus et al., 2009).

Customer-perceived value

Although Sheth et al. (1991) were the pioneers of conceptualising customer-perceived value (CPV), Zauner et al. (2015) described CPV as a multidimensional construct, consisting of five customer value dimensions, namely functional value, epistemic value, conditional value, social value and emotional value. Sweeney and Soutar (2001) designed the CPV scale (PERVAL or perceived value scale) comprising four dimensions namely emotional value, social value, functional value (value for money or price) and functional value (performance or quality). For the purpose of this study, the dimensions suggested by Sweeney and Soutar (2001) and Hennigs et al. (2013) were used as part of the CPV measurement as these dimensions have been well-examined in the literature (Hennigs et al., 2013).

Brand strength

Brand strength refers to the value that a brand provides to a company and can be directly linked to the utility that customers associate with the brand (Grohs et al., 2015; He & Calder, 2020). Superior brand strength provides an advantage to companies in a competitive business environment (Ho-Dac et al., 2013). This strength is amplified when there are many other potential customers who share these associations (Grohs et al., 2015).

Keller's (2016) brand resonance model can be used as a guideline to build customer associations and ultimately reach the brand resonance stage, indicating a strong brand. The dimensions that explain the strength of a customer's attitude towards a brand refer to the cognitive, affective (emotional) and conative (behavioural) aspects (Chaudhuri, 2006; Hennigs et al., 2013).

Extensive research has been done examining brand experience, CPV and brand strength (Brakus et al., 2009; Hennigs et al., 2013; Tzavlopoulos et al., 2019; Wiedmann et al., 2018). However, limited research has been done on the relationships among these three constructs in the South African e-commerce industry. The conceptual framework, emanating from the literature, was used to explore the relationships among these constructs in this study (Figure 1).

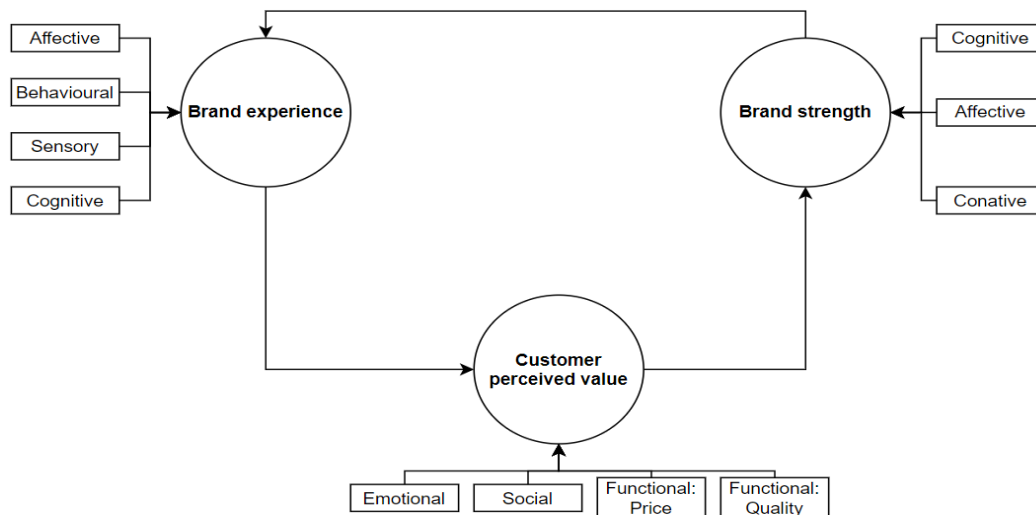


Figure 1: Theoretical conceptual framework

RESEARCH OBJECTIVES AND HYPOTHESES

The primary research objective (RO₁) of this study was to assess the relationships among brand experience, CPV and brand strength for Company A. The secondary research objectives were: 1) to assess the relationship between brand experience and CPV, 2) to assess the relationship between CPV and brand strength; and 3) to assess the relationship between brand strength and brand experience.

The following hypotheses were addressed: 1) H₁: There is a positive relationship between brand experience and CPV; 2) H₂: There is a positive relationship between brand experience and CPV; 3) H₃: There is a positive relationship between CPV and brand strength; 4) H₄: There is a positive relationship between brand strength and brand experience.

RESEARCH METHODOLOGY

The study focused on a single 'pure play' e-commerce (company A) in the South African e-commerce industry. A requirement was that respondents who participated in the study had to be familiar with the Company A brand. Therefore, a filter question was asked at the start of the questionnaire.

Primary data were collected using closed-ended responses. Questionnaires were used as the data collection method. To ensure the validity of the data, the validity provided by the method, available resources, the population that had to be investigated/surveyed, the cost of the method, and the ethical implications were considered (Johnson et al., 2016). In prior studies where the brand experience scale, the CPV scale and dimension measurement model were used, surveys were also utilised to collect the data (see Brakus et al., 2009; Hennigs et al., 2013; Wiedmann et al., 2018).

A self-administered online questionnaire was used. Online surveys have been found to be relatively short and enjoyable to respondents, resulting in fewer mistakes and fewer non-response errors (Siva Durga Prasad Nayak & Narayan, 2019). A customised link to the questionnaire, subdivided into three

sections, was shared with respondents on a digital platform. The first section contained the introductory questions regarding the respondent's familiarity with Company A. The second section covered the aforementioned constructs (brand experience, CPV and brand strength). The final section consisted of questions regarding the social demographics/characteristics of the respondent.

Three scales – adapted for this study – were used to measure brand experience, CPV and brand strength (see Appendix B). The brand experience scale developed by Brakus et al. (2009) was utilised, which covered the affective, behavioural, sensory and cognitive dimensions (five items). The CPV scale (eight items) was developed by Sweeney and Soutar (2001). This scale consists of the four dimensions of emotional, social, price and quality aspects, validated in several studies (Hennigs et al., 2013; Wiedmann et al., 2018). Finally, brand strength was measured using the 8-item-scale (based on the cognitive, affective and conative dimensions) developed by Hennigs et al. (2013). To ensure validity and reliability of the data, the questions were based on existing measurement instruments with a Cronbach's alpha of more than 0.70 reported, as recommended by Pallant (2011), and adapted for this study (see Appendix B). A five-point Likert-type response was used.

As it was impossible to reach the entire population and probability sampling was not practical, non-probability sampling (convenience) was used (Acharya et al., 2013; Babbie, 2010; Hair et al., 2016). The population consisted of customers of Company A. The social media platforms LinkedIn, Instagram, WhatsApp and Facebook were used to collect the data. A total of 576 respondents started completing the survey and 256 respondents completed it. A R500 takealot.com voucher was offered as a prize to a randomly selected respondent to stimulate interest. The survey was anonymous, and respondents who wanted to be considered for the voucher, were redirected to a separate questionnaire, where their e-mail addresses were captured. Data of the redirected respondents was captured and stored separately. To ensure that the questionnaire was clear and user-friendly, it was shared with a small group of individuals as a pilot study prior to sharing it on social media. This pilot test was used to verify that the survey displayed correctly on various browsers, devices and screen resolutions, as recommended by Clow and James (2014).

Finally, the data was exported and analysed using covariance-based structural equation modelling (CB-SEM) by using Lavaan's R package (Rosseel, 2012). The data analysis included descriptive and inferential statistics.

RESULTS AND DISCUSSION

The target audience of the online survey were customers that were aware of the Company A brand. Of the 576 respondents, a total of 256 (44.44%) completed the questionnaire. The age group with the largest representation (71% of the respondents in the realised sample) was the 26–41-year-old group. The second biggest group was between the ages 42 and 57, while the smallest group was between 15 and 25 years of age. The age median was 34 and the mean for the realised sample was 38 years. The realised sample consisted of 61% females and 38% males while 1% preferred not to state their gender. There was a relatively even distribution for the various income groups with the income group most represented (28%) being respondents earning between R200 001 and R400 000 per year, while the second highest were the group of individuals earning more than R800 000 per year. The income group with the lowest representation in the realised sample were customers earning between R600 001 and R800 000. Most respondents (34%) indicated buying a product in the preceding month, while the data showed that 85% (the sum of less than six months ago, less than a month ago and less than a week ago) of respondents had purchased a product from Company A in the preceding six months, thus illustrating their familiarity with the brand and its offering.

To assess the reliability in the data, Cronbach's alpha coefficient was used, as recommended by Kimberlin and Winterstein (2008), Louangrath and Sutanapong (2018) and Taherdoost (2016). The Cronbach's alpha result of each dimension is presented in Table 1. Most dimensions measured in this study had Cronbach's alpha scores that exceeded 0.70, except for two, namely the functional (CPV) and cognitive (brand strength) dimensions. However, it was noted that the results of these two dimensions were above 0.60 and were also considered as reliable, as proposed by Gde Agung Yana et al. (2015). The reliability test of each construct is depicted in Table 1. Each construct returned a Cronbach's alpha of above 0.70, indicating the reliability of the data.

Table 1: Reliability test of each dimension

Construct	Dimension	Cronbach's alpha	Number of items
Brand experience	Affective	0.89	3
	Behavioural	0.76	2
Customer-perceived value	Financial	0.83	2
	Functional	0.63	2
	Social	0.79	2
	CPV general	0.78	2
Brand strength	Cognitive	0.69	3
	Affective	0.86	3
	Conative	0.8	2
Construct	Brand experience	0.73	
	Customer perceived value	0.81	
	Brand strength	0.89	

To measure the strength of association between latent variables – brand strength, CPV and brand experience – CB-SEM was used. **Error! Reference source not found.** presents the goodness-of-fit indices for the model used in the current study, all indicating a good fit (Hooper et al., 2008). Goodness-of-fit measurement refers to the extent to which the relationship between the indicator variables, which are presented by the observed covariance matrix, can be reproduced (Hair et al., 2017). In this study, the traditional chi-square statistic provided an insignificant result (0.002) at a 0.05 threshold (Barrett, 2009), indicating a 'lack of fit', as is the case in many studies. However, the chi-square statistic has 'severe limitations' (Hooper et al, 2008). A cut-off RMSEA value <0.05 is regarded as a good fit (in this study 0.063), while studies indicated that a cut-off point of around 0.95 for the GFI statistic is regarded as appropriate with lower sample sizes (in this study the value was 0.948). SRMR values of <0.05 are regarded as a good fit (in this study 0.03), and >0.95 is regarded the threshold for NNFI (in this study 0.97). As far as the CFI is concerned, the results of this study indicated a value of 0.978, while a value of >0.95 is regarded as indicative of a good fit (Hooper et al., 2008). Each result therefore exceeded the norm which indicates a good fit of the data to the theoretical model (see Table 2).

Table 2: Goodness-of-fit metrics

Goodness-of-fit metric	Result	Norm
Chi-square	0.002	<0.05
RMSEA	0.063	<0.05
CFI	0.978	>0.95
NNFI	0.97	>0.95
SRMR	0.03	<0.05
GFI	0.948	>0.9

Note: RMSEA = root mean square error of approximation; CFI = comparable fit index; NNFI = non-normed fit index;

Table 3 presents the R² values of each dimension (variable) and the constructs. All variables had an R² value of above 0.4, as recommended by Ozili (2022). Table 2 showed that each variable was statistically significant. These explanatory variables therefore gave a good prediction of the dependent variable. For example, 75% of variation in brand experience and 91% of the variation in brand strength was explained by this model.

Table 3: R-square values

Construct	Dimension	R-square
Brand experience	Affective	0.75
	Behavioural	0.46
Customer-perceived value	Financial	0.51
	Functional	0.44
	Social	0.47
	CPV general	0.67
Brand strength	Cognitive	0.68
	Affective	0.86
	Conative	0.71
Brand experience		0.75
Customer-perceived value		0.71
Brand strength		0.91

Error! Not a valid bookmark self-reference. Table 4 below reports the standardised estimated loading values for each dimension. The standardised estimate loading values per dimension are indicative of the convergent validity of the model when the loading value is above 0.5 (Amora, 2021). The affective dimension linked to the brand strength construct had the highest value of 0.926, and the functional dimension of CPV had the lowest value of 0.662. All loadings therefore had a value of above 0.5, which confirms the convergent validity of the model. Additionally, all the p-values were below 0.05, which showed that the standardised estimate loadings were statistically significant.

Table 4: Standardised estimate loading values

Construct	Dimension	Loadings	P-value
Brand experience	Affective	0.865	< 0.001
	Behavioural	0.676	< 0.001
Customer-perceived value	Financial	0.717	< 0.001
	Functional	0.662	< 0.001
	Social	0.683	< 0.001
	CPV general	0.817	< 0.001
Brand strength	Cognitive	0.827	< 0.001
	Affective	0.926	< 0.001
	Conative	0.842	< 0.001

The average variance extracted (Table 5) offers further evidence of the convergent validity of the model and this should be higher than 0.50 (Hair et al., 2011). In this study, the variance extracted exceeded 0.50 with 'brand strength' obtaining the highest loading. The construct reliability rating must be above 0.70 to confirm reliability, and all constructs exceeded this norm. The model was therefore deemed to be providing reliable results.

Table 5: Average variance and construct reliability

Construct	Variance extracted	Construct reliability
Brand experience	0.6	0.75
Customer-perceived value	0.52	0.81
Brand strength	0.75	0.9

CB-SEM was used to test the relationships among the constructs. Figure 2 depicts the relationships between brand experience, CPV and brand strength. The standardised estimate path coefficients between the constructs indicated the influence of one variable on another. The path coefficient between brand experience and CPV was 0.602, between CPV and brand strength it was 0.896, and between brand strength and brand experience it was 0.682. These results demonstrated that the strongest relationship existed between CPV and brand strength. Each path coefficient was statistically significant with the p-values being lower than 0.05, except for between brand experience and CPV, where the p-value was 0.051. However, this was very close to 0.05, therefore approaching

statistical significance, and could therefore be seen as an indication of a relationship between these two variables.

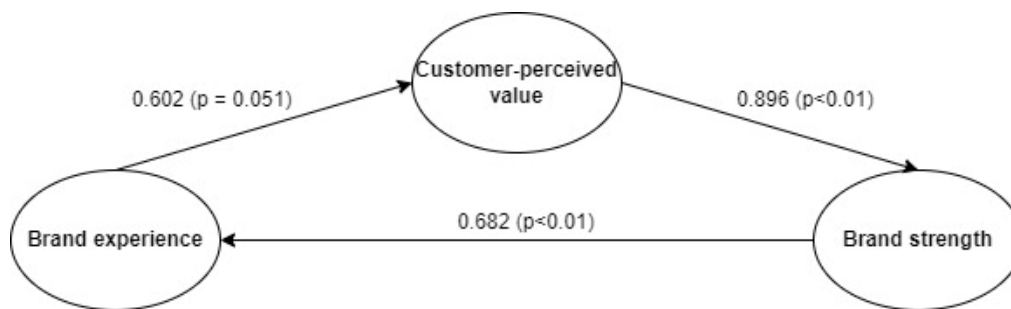


Figure 2: Relationship between the three constructs was significant at a 1% significance level.

By using an online survey and CB-SEM, it was possible to assess the relationships among brand experience, CPV and brand strength. It was found that there is a positive relationship among all three constructs. The implication is that the three constructs create a loop, which means an improvement in one of the constructs will have a positive effect on the other constructs. In the case of brand experience and brand strength, it is an indirect effect. The results showed that the model was a good fit to the data. These results correspond with previous literature where Wiedmann et al. (2018) considered the power of experiential marketing by exploring the causal relationship between multisensory marketing, brand experience, CPV and brand strength with a focus on the luxury brand market. In the South African e-commerce industry, this insight could be used to develop the appropriate brand management strategy.

Assessment of hypotheses

H₂: There is a positive relationship between brand experience and CPV.

The study found that there is a positive relationship between brand experience and CPV with a path coefficient of 0.602 and a p-value of 0.051. The p-value was close to 0.05, which indicated that it was close to statistically significant. Therefore, H (there is a positive relationship between brand experience and CPV) could be accepted. The positive relationship between brand experience and CPV demonstrated a positive relationship between the affective and behavioural dimensions of brand experience, and the financial, functional, social and general dimensions of CPV. This result corresponded with previous literature that also found a positive relationship between these two constructs, but in the luxury hotel industry (Wiedmann et al., 2018).

H₃: There is a positive relationship between CPV and brand strength.

The path coefficient of 0.896 and p-value of less than 0.01 confirmed the positive relationship between CPV and brand strength. H₂ could be accepted. In previous studies, Hennigs et al. (2013) found a positive relationship between customer perception (that is driven by the financial, functional and social dimensions) and brand strength for luxury brands. The result of the current study was similar; however, it only focused on one brand and on the South African e-commerce industry while the study by Hennigs et al. (2013) investigated the global luxury market.

H₄: There is a positive relationship between brand strength and brand experience.

The relevance of the fourth objective of this study was confirmed by a path coefficient between brand strength and brand experience of 0.682. The path coefficient was statistically significant with a p-value of less than 0.01. Therefore H₃ (there is a positive relationship between brand strength and brand experience) could be accepted. The positive relationship between brand strength and brand experience means that when brand strength increases, it will have a positive effect on brand experience.

PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

Understanding the relationship among brand experience, CPV and brand strength allows brand managers to adjust their brand strategies. Based on the results reported here, an online retailer could

decide to focus on one construct or on all three constructs simultaneously. For example, campaigns that are targeted at improving customer-perceived value can be adjusted to address brand experience, as this will have a positive effect on CPV. The current study found that the strongest relationship exists between CPV and brand strength. If brand strength therefore needs to be improved, managers could develop a CPV campaign, which focuses on creating and delivering value that is positively perceived by customers. Targeted brand strategies might reduce the costs of marketing campaigns, as it would not be necessary to develop individual campaigns to address brand experience, CPV and brand strength.

The confirmation of a positive relationship between brand strength and CPV in the South African e-commerce industry (at least for Company A) suggest several recommendations. The analysis showed that brand experience could contribute to a positive CPV. This relationship may affect what consumers believe, their emotional attachment to the brand and their behaviour towards the brand. The implication for brand managers is that experiential marketing strategies, which focus on evoking sensations and feelings from customers, would affect the various CPV dimensions (financial, functional, social and general). If positively perceived value could be created, such value would assist brand managers to differentiate their brand successfully.

The study confirmed the positive relationship between CPV and brand strength in the South African e-commerce industry for Company A. Brand managers should therefore address the perception of customers to create a bond between the consumer and the brand, which could contribute to superior cognitive, affective and conative value, and generate a positive consumer response.

The positive influence of brand strength on brand experience is equally important. If brand managers heighten a customer's affection towards the brand and increases their urge to interact with a brand, it will positively influence the behaviour of such a customer. For example, a customer's behaviour will be adjusted to actively search for this brand when looking for a product online. This behaviour adjustment is important for Company A in particular as the South African e-commerce industry is expected to experience significant growth in the future. Branding strategies must therefore be focused on enhancing the relationship between brand strength and brand experience to ensure that new e-commerce customers would buy from Company A.

It is recommended that companies measure their brand experience, CPV and brand strength annually by using the e-commerce model suggested in this study. An annual measurement should provide sufficient time to address and improve on identified areas of concerns. The company can then compare the results prior to adjusting brand strategies with the results after the adjustment.

CONCLUSIONS

After conducting statistical analyses, utilising several statistical techniques, such as Cronbach's alpha, chi-square and R-square, the research model was found to be reliable, valid and a good fit between the data and the conceptual model. All these metrics confirm the construct validity of the empirical model. It was found that a relationship existed among brand experience, CPV and brand strength, as each path coefficient was statistically significant, with the p-values being lower than or close to 0.05. These positive relationships mean that, if brand experience grow, it will have a positive effect on CPV and, subsequently, CPV will have a positive influence on brand strength. Completion of the loop implies that, when brand strength increases, it will positively influence brand experience. This result provides insights to managers, such as the creation of focused brand strategies and project prioritisation. Additionally, brand managers would have a better perspective on their brand management options that could enhance the competitive advantage of their company, which should improve business success. The study confirmed that the proposed conceptual model is suited to test the relationships among brand experience, CPV and brand strength in the e-commerce industry.

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Reviewing the perceptions of and addressing the barriers to physical eSports participation in South Africa

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Keywords: *Physical eSports, barriers, behavioural intention, perceptions, virtual cycling/running*

ABSTRACT

Virtual cycling, among other formats, as a form of physical eSports, already a sanctioned sport (Union Cycliste Internationale – UCI), is fast becoming an Olympic sport, paired with the eSports market expected to generate an expected \$1.87 billion in global revenue for 2023. Yet little is known about consumers' perceptions of or the barriers inhibiting their participation in eSports. The possible insights into this novel research phenomenon were addressed by following a descriptive research design and collecting data from a purposive sample of 474 general South African consumers aged between 18 to 56 in 2022. This study first reports the demographic and physical eSport background information. Then, despite the statistically positive responses for perceived awareness, attitude and participation intention, the barriers respondents revealed clarifies why this form of eSports needs drastic intervention by marketers and alike. This study's recommendations explain how various stakeholders can benefit from expanding physical eSports participation in the country.

INTRODUCTION

This study forms part of a larger project that pioneers the concept of physical eSports. While many readers might be familiar with virtual reality games based on traditional sports, such as running, cycling, golf, tennis and dancing, there is no umbrella term as with console-based eSports – the commonly known format of eSports. Given the expansion of eSports, which now includes virtual games necessitating the users' physical movement, it is essential to separate virtual physical play from controller/keyboard play. While the initial separation is self-explanatory, having a clear idea of what constitutes physical eSports is not as straightforward since physical movement play can only be considered on a physical eSports continuum with no definitive definition in the literature as of this article. Nonetheless, this current investigation reviews South African consumers' perceptions of this new eSports format while simultaneously reflecting on and addressing the barriers restricting their participation. In other words, considering the vast number of reported benefits (Dunn, 2017; Allenbey, 2022; Hurley, 2023), this study first reports South African consumers' awareness of, attitude towards and participation intention and reflects on the possible reasons most consumers are not playing physical, virtual games in the comfort of their homes while being active, improving their health, physical ability, preparing and training for real-life events, and socialising with and competing against other global players. To assist physical eSports brands, software developers, equipment manufacturers, resellers and, more importantly, marketing professionals in answering and solving this problem, this study reports on the status of physical eSports participation in South Africa, including a sample profile, relevant background information, consumers' awareness of physical eSports, their attitude towards and participation intentions. After that, the barriers are reported and discussed, and the paper concludes with implications and recommendations based on these findings.

LITERATURE OVERVIEW

Electronic Sports defined and market overview

Electronic sports, referred to in short as eSports, as it is commonly known worldwide, refers to any video game competition where players or teams compete in accordance with regulated conditions (Riatti & Thiel, 2021). Like any other sport, eSports draw spectators (Janas, 2019) to varying degrees across various platforms, such as digitally and in person. As the concept progressed, Sjöblom and Hamari (2017) provided an updated definition of eSports, which is “a form of sports where electronic systems facilitate the primary aspects of the activity; the input of players and teams, as well as the output of the eSports system, are mediated by human-computer interfaces”. As the title suggests, eSports is seen as a digitised version of traditional sports where participants participate and compete against other players in the virtual digital world (Sjöblom & Hamari, 2017; Gough, 2021a) while utilising cognitive skills in an attractive virtual digital world (Martin-Niedecken & Schättin, 2020). Console-based eSports, as the general term, is played using a mobile device, hand-held controllers, keyboards, mice, joysticks, steering wheels, and more advanced equipment like various simulators.

eSports have become intricate and advanced, necessitating the conception of a four-quadrant eSports matrix (Cranmer *et al.*, 2021). Furthermore, these same authors identified three tiers in the categorisation of eSports which include physical activity (passive-active), the role of technology (technology-driven-enhanced) and virtuality (physical-virtual environment). Considering the three tiers, Cranmer *et al.* (2021) proposed the four distinct eSport types in their matrix, as outlined below:

eSport type 1: sport digitisation (representation of popular physical sports- FIFA eWorld Cup, NBA 2K League, F1 eSport Series)

eSport type 2: competitive multiplayer computer games (traditional/multiplayer game experience-Streetfighter, StarCraft II, League of Legends)

eSport type 3: digitally enhanced sport (modify existing sport and player rules and setups through digital augmentations- basketball, football, F1)

eSport type 4: immersive reality sport (new types of immersive eSports incorporating VR technologies- Echo Combat, Space Junkies with the most renowned game, namely Fortnite)

eSports, as per the above delineation, is in its infancy in South Africa, as reflected by the expected revenue generation probability of R8.2 million by 2023 (Gough, 2021b) compared to the global revenue expected of \$1.87 billion (Gough, 2022b). The popularity of eSports can likely be attributed to the tremendous growth in the modern international digital society and increased interest among consumers to be integrated with global social communities that participate in the various games. Therefore, it is likely that the eSports market will expand significantly soon, especially given the numerous eSports formats.

This notion is supported because eSports have become internationally sanctioned through various committees, sporting bodies, and an Olympic-level sport. That is, on June 23-25, 2023, the inaugural Olympic eSports series took place in Singapore. The types of eSports played at the event are outlined in Table 1:

Table 1: 2023 Olympic eSport series sport and supporting game

#	eSport type	eSport game
1	<i>Virtual cycling/running (triathlon)*</i>	Zwift
2	Digital archery	Tic Tac Bow
3	Sailing	Virtual Regatta
4	<i>Dance*</i>	Just Dance
5	Baseball	WBSC: eBASEBALL: POWER PROS
6	Chess	Chess.com
7	Tennis	Tennis Clash
8	Shooting	ISSF Challenge X Fortnite
9	Motorsport	Gran Turismo 7
10	<i>Taekwondo*</i>	<i>Virtual Taekwondo</i>

*Physical eSports

Source: Compiled from: IOC (2023)

While these ten sports shown in Table 1 are not the only eSports types being played globally, their representation at an Olympic level indicates that they are established sports with an astounding income potential. Of note is that only three out of the ten eSports categories, totalling five official sporting codes, namely virtual cycling, running and triathlon via Zwift, dancing via Just Dance and Taekwondo via Virtual Taekwondo, comply with the extent and definition proposed by this research project. While the International Olympic Committee (IOC) (2023) terms this series as “a global virtual and simulated sports competition”, this study provides a clear definition of physical eSports.

Clarifying the concept: physical eSports

Physical eSports as a new type of eSports slowly emerged in 2009 with a Nintendo Wii-based game called Just Dance, which at that stage entailed the player to “mimic the motions of an on-screen dancer’s choreography for a particular song” and had to use the Wii remote and specially designed dance pads that registered the player’s moves and assessed the accuracy whereafter game-play accuracy points determined the outcome of the performance (Yin-Poole, 2011; Hernandez, 2010). The principal physical eSport research project, of which this study forms part, clearly distinguishes console-based from physical eSports, but some exceptions must be noted. For one, although initially a console-based game (Nintendo Wii), Just Dance emanates from an official traditional sport incorporating several dance styles and the need for specific equipment paired with the physical bodily movement required to play the game (Hernandez, 2010); it is, therefore, appropriately categorised as physical eSports. Being foundational work, and as mentioned, a lack of a universal term and classification, this hybrid eSport is suggested to belong on the physical eSports continuum. Nonetheless, this eSport has progressed remarkably over the last twenty years, drawing millions worldwide players (Yin-Poole, 2011).

Fast forward five years, and in 2014 the first virtual cycling and running game from Zwift Inc. with the same name (Zwift, 2015) was introduced and has since reached a market value above \$1 billion (Christovich, 2023). This game alone had a reported 3 million users worldwide in 2021 (Reed, 2021). Many similar running and cycling-based games followed, with one of the most recent new categories being Virtual Taekwondo, established in 2018 (Gordon, 2021). Separating physical eSports from console-based games is that it combines full-body motion tracking or exertion tracking via specific sensors, virtual video games and live interaction with and opposite other human players while using special equipment and connected technologies to play the games. From the various definitions in the literature, this study defines physical eSports as “virtual video-based gaming, requiring participants to use full-body movements to compete in recreational and competitive virtual and digital environments integrated with an application/game and specialised equipment while simultaneously being able to track their progress and interact with other human participants worldwide.” The scope of physical eSports is outlined in Figure 1 to avoid confusion.

Figure 1. An illustration of physical eSports



Source: Author’s construction

This form of eSports emanates from traditional sports and requires users to physically move their

bodies to play a virtual game based on traditional sports codes. The players need additional equipment to participate and view the results of their recorded activity or session. The level of participation in physical eSports ranges from recreational/enjoyment purposes to using it as a training platform or for competitive racing. Examples of physical eSports include Exergaming, running apps like Zwift, Wahoo RGT, Rolla World, Arcade Fitness and virtual marathon races, indoor cycling apps like Zwift, Rouvy, Wahoo RGT, BKool and Rolla World, and strength training solutions like SymGym. The sessions recorded by these apps can be synchronised to performance monitoring apps like Strava or fitness tracker and smartwatch companion apps from brands including Garmin, Fitbit, Polar, Samsung and Apple. Physical eSports, as per the definition and scope of this study, excludes at-home sports simulators like golf, baseball, and soccer, online or DVD-based at-home fitness programmes and sports integrated with console or PC-based video game eSports like FIFA or Tiger Woods Golf.

Physical eSports is multi-faceted, as it provides players with an opportunity to socialise and integrate as part of global communities (Allenbey, 2022) and complete structured training programmes (Hurley, 2023), which serve as a performance management tool (Dunn, 2017). These attributes are what makes physical eSport unique. This uniqueness of physical eSports is further evident from the apps, games, and equipment used to participate in this form of eSports. Applications for indoor eSports training for cycling include Zwift, Wahoo X (Wahoo SYSTM and RGT), TrainerRoad, Rouvy, BKool, Kinomap, FulGaz, Kinetic Fit, Tacx Training, and Peloton (Von Bromley, 2022), for running, includes Peloton, Zwift (Sayer *et al.*, 2023), Arcade Fitness and RollaWorld, where full-body training games include SymGym (Esquada, 2016) and Exergaming (Cataldo *et al.*, 2019; Benzing & Schmidt, 2018). Types of equipment used for these indoor training and performance monitoring include bikes, smart trainers, treadmills, and fitness mirrors, along with fitness and smart watches (Moscaritolo, 2022). Streaming live sessions and communicating with eSports social communities and clubs are essential to participating in physical eSports. The top streaming and interaction platforms include Twitch, Discord and YouTube (ESports, 2023).

Study rationale

Despite the likely success of the physical eSports market and global growth in participation, the novelty of this eSports type automatically justifies the need for more research on the topic. However, some attempts are noted in the literature, particularly regarding virtual-physical eSports, that report on some benefits and barriers to participation. Two studies (Cataldo *et al.*, 2019; Benzing & Schmidt, 2018) reported the benefits of Exergaming: engagement and motivation, social interaction, the variety of games and applications and the participant's overall health. The other study revealed two Exergaming barriers, namely that it is costly to the average consumer and there are some associated technical restrictions (Benzing & Schmidt, 2018). Besides these few studies, little is known about consumers' physical eSports participation, attitudes and perceptions.

Considering the international exposure of this eSports format, with many athlete representatives from South Africa, paired with the various benefits associated with physical eSports, there is not a single research study or investigation that addressed South African consumers' perceptions thereof, no reflected and attempted to address possible barriers to participation - both on a national and international level. In accordance, this study provides a departure point. It gives some insights into the status of physical eSports participation, a sample profile and relevant background information, perceived awareness, attitude and participation intent, and participation barriers. These answers will reveal possible reasons why physical eSports are yet to be mainstream in South Africa, despite being so in some other countries. The findings have significant managerial and practical implications. That is, at minimum, the results will assist physical eSports game designers, app developers, equipment manufacturers and the like in having a strategic position and will provide critical suggestions to target the South African consumer market effectively.

METHODOLOGY

RESEARCH DESIGN, SAMPLING METHOD, AND DATA COLLECTION

This study was guided by a descriptive research design and a cross-sectional approach. The target population comprised adult consumers who, in 2022, were aged 18 to 56 years, residing in South

Africa. This age inclusion was based on the definition of generational cohorts by Markert (2004), where 18-36 represented the Generation Y cohort, and 37–56-year-olds represented the Generation X cohort. A quantitative study collected data from 500 general South African consumers at the end of 2022 by implementing a computer-administered survey. To ensure a 100 percent response rate, a reputable research company in South Africa with access to thousands of panel members that adhere to ethical standards and POPI Act regulations were used to distribute the online survey. A further consideration was the possible biased nature of the responses since this research company awards participants with points that can be exchanged for vouchers. Despite this, no prior evidence of biased responses using this company had been reported. Since this study endeavoured to collect data from a specific target population, as per purposive sampling, quotas were set before distribution. In addition, these quotas, specifically the equal gender, cohort and age distribution, were vital to limit the skewness of the findings and the possible misrepresentation of an average physical eSports participant. Of course, to provide a South African physical eSports context, the country of residence was a strict requirement where this study targeted adult consumers within the two stated generations.

The following quotas were applicable when the online questionnaire was constructed:

- 500 responses
- 50 percent gender distribution [male: female]
- 50 percent of Generation Y [18-36] and Generation X [37-56]
- Respondents had to be aged 18 to 56 years in 2022
- Respondents had to be a South African national residing in the country at the time of the survey

With these criteria, no data that fell outside the study's target population were collected. The data were returned to the researchers in the form of data files immediately after the quota of 500 was reached. The turnaround time was three days, one of the justifications for using this research company.

RESEARCH INSTRUMENT

The electronic research instrument used in this study consisted of three sections, the first being the cover page that included the study's information, a clear definition and graphical depictions of physical eSports and types to clarify the scope of the research (Refer to Figure 1). The cover page concluded with a statement of informed consent emphasising that this was a minimal-risk study based on voluntary participation and respondents could withdraw at any point without penalty. The respondents acknowledged the information and were advised that the results would only be reported in aggregate form. The second section sought demographic information, including gender, age, province of residence, highest qualification, and individual monthly income before tax. The third included background questions and the perceived barriers to participating in physical eSports. The last section comprised the 14 scaled-response items retrieved from previously validated and published research. These scales were all adapted from respected sources: physical eSports awareness from Yoo *et al.* (2000:203); attitude and participation intention from Kim and Shin (2015:553). These perceptual items were measured using a six-point Likert scale where one = strongly disagree to six = strongly agree.

DATA ANALYSIS

Using SPSS Version 28.0, data analysis procedures comprised descriptive statistics, including frequencies, scale reliability and a one-sample t-test. These statistical procedures aimed to establish the data's internal consistency and composite reliability. The level of statistical significance was set at $p < 0.05$; since these items were measured on a six-point scale, the one-sample t-test test value was set at 3.5. Owing to research linked to physical eSports being in its infancy, it was appropriate for this study to rely on descriptive statistics to report preliminary findings that can be used to build a research repertoire. As such, frequencies were computed for each relevant response to report on the study sample's profile, physical eSports participants' background information, and reporting on the barriers the sample associated with participation in physical eSports. The one-sample t-test is relevant in reporting the statistical significance of South African consumers' perceived awareness,

attitudes and physical eSport participation intentions. In combination, these findings address this study's research problem.

Some considerations when interpreting the results are as follows. The cohorts were reported as per the definitions by Markert (2004). While the respondents had to indicate their age at the last birthday, this study reports the results as they align with the cohort definitions, whereby 18-26 and 27-36 represent the two upper and lower portions of the Generation Y cohort, respectively, and 37-46 and 47-56 the same, but for Generation X. The income brackets were derived from a South African study (Maphupha, 2018) that outlined the nation's income classes and the coinciding annual income of residents. This study divided these annual income values by 12 and requested respondents indicate their gross monthly income.

FINDINGS AND DISCUSSION

With the quota set at 500 responses, a 100 percent response rate was achieved. Although, after performing a Mahalanobis distance test (Tabachnick & Fidell, 2013), 26 outliers had to be removed, resulting in a 94.8 percent success rate. Furthermore, given the novelty of the concept of physical eSports at the time of data collection, many respondents misinterpreted it with console-based eSports. As a result, what the data shows and what the findings represent should be read carefully. Furthermore, to answer the study's research question, the data were split into non-users and confirmed physical eSports users, and the findings were presented as follows:

Table 2: Total study sample profile

Table 3: Physical eSports participants' background information

Table 4: Total sample's physical eSports awareness, attitude and participation intentions

Table 5: The barriers non-users associate with physical eSports participation

Table 2. Study sample's profile

Category ^a	f	%	Cohort	f	%	Province	f	%
Physical eSports	118	24.9	Gen Y	289	61	E-Cape	27	5.7
Non-users	356	75.1	Gen X	185	39	Free State	15	3.2
Gender	f	%	Age	f	%	Gauteng	226	47.7
Male	235	49.6	18-26	120	25.3	KZN	71	15
Female	238	50.2	27-36	169	35.7	Limpopo	24	5.1
Other	1	0.2	37-46	137	28.9	Mpumalanga	21	4.4
Income ^b	f	%	47-56	48	10.1	N-Cape	7	1.5
R0-4500	78	16.5	Qualification ^c	f	%	North-West	10	2.1
R4501-12500	122	25.7	<Grade 12	126	26.6	W-Cape	73	15.4
R12501-30000	158	33.3	Certif./Dipl.	138	29.1	Spend ^e	f	%
R30001-52500	72	15.2	U-degree	122	25.7	R0	51	10.8
R52501-72000	22	4.6	P-degree	85	17.9	R1-100	144	30.4
R72001-110000	7	1.5	MBA	3	0.6	R101-300	180	38
R110001+	15	3.2	T-Sport ^d	f	%	R301-R500	71	15
			Yes	404	85.2	R500+	28	5.9
			No	70	14.8			

Notes for the table:

n=474

^a Category – refers to the three types of eSports users

^b Income – monthly before tax (gross)

^c Qualification – highest | undergraduate and postgraduate degrees

^d T-Sport – traditional sport participation

^e Spend – willing to spend on a monthly eSports subscription

Physical eSports participation was delineated in South Africa as physical eSports (24.9%) and non-users (75.1%). First and foremost, merely 118 cases or 24.9 percent of the sample, participated in physical eSports, and the majority did not (75.1%).

This study's sample comprised the following demographical dimensions to contextualise the remainder of the data reported. For the total sample, an almost equal gender distribution was achieved, with slightly more female (50.2%) than male (49.6%) respondents. As explained, equal

distribution was not achieved for the cohort criteria, with consequent implications for age. Nonetheless, 61 percent of respondents represented the Generation Y cohort, with 25.3 percent aged 18-26 years and 35.7 percent between 27-36 years. Generation X was represented by 39 percent of the sample, with 28.9 percent being aged between 37-46 years, with the least representation from 47-56 years (10.1%). Moreover, most respondents resided in the Gauteng province (47.7%), followed by Western Cape (15.4%) and KwaZulu-Natal (15%). The other 21.9 percent of the respondents represented the Eastern Cape (5.7%), Limpopo (5.1%), Mpumalanga (4.4%), Free State (3.2%), North-West (2.1%) and the Northern-Cape (1.5%). The reason for most respondents residing in the Gauteng province might be that the province is the most densely populated of the other eight (Statistics SA, 2022). Contrary to the national average, where only seven percent of South African adults are reported to have a tertiary education (Organisation for Economic Co-operation and Development (OECD), 2019), 44.2 percent of this study's sample had obtained an undergraduate degree (25.7%), a post-graduate degree (17.9%) and an MBA (0.6%). Most of this study's sample had a certificate or diploma (29.1%), and 26.6 percent did not complete Grade 12.

Regarding income classes, a third of the respondents (33.3%) earned a gross income between R12,001-R30,000 per month. This aligns with a South African employee's average monthly salary, which in 2023 stood at R26,032 (Business Tech, 2023). There was, 25.7 percent of respondents that earned between R4,501 and R12,500, 16.5 percent between R0 and R4,500 and 15.2 percent between R30,001 and R52,500. The remaining 9.3 percent of the sample earned between R52,501 and R72,00 (4.6%), R72,001 and R110,000 (1.5%) and more than R110,001 (3.2%). The amount of money the respondents were willing to spend on a monthly subscription to access physical eSports games is related to their income level. That is, 42.2 percent of respondents earned between R0-R12,500, and 41.2 percent were willing to spend only between R0-R100 monthly. The logical explanation could be that these consumers have less disposable income and must prioritise other expenses. A promising finding for physical eSports- game developers specifically is that 58.9 percent of the respondents were willing to spend between R101-R300 (38%), R301-R500 (15%) and more than R500 (5.9%) on a monthly subscription.

To understand the current and potential South African physical eSports market, all stakeholders aimed at increasing participation in the country and abroad must understand the samples' background information about their physical eSports behaviour and habits. Thus, this study requested respondents who confirmed their physical eSport participation (118) to respond to specific questions. The responses are outlined in Table 3.

Knowing which applications or games respondents use will enable pointed industry recommendations. A limitation of the findings presented is that 48.3 percent of the respondents needed to specify the application or game they used, or others were identified. Further, besides the results of this study showing slightly higher participation in indoor running (50.8%) as opposed to indoor cycling (44.9%), the latter is the globally preferred physical eSports type. Additionally, the most popular indoor cycling application is Zwift (Von Bromley, 2022), and this is reflected by this study's eSports sample, with a recorded 39 percent being Zwift users. Reporting the platforms used in physical eSports is vital since game and application developers can optimise the games for these platforms. For example, an app should work seamlessly on smart TVs, more so on Tablets, ensuring improved accessibility to these games and apps. The most preferred platforms were smart TVs (51.7%), followed by mobile devices such as smartphones (45.8%), personal computers or laptops (38.1%) and tablet devices (13.6%).

Table 3. Physical eSports participants' background information

Reason ^a	F	%	Platform ^d	f	%
Recreation	108	91.5	Mobile	54	45.8
Competitive	20	16.9	Tablet	16	13.6
			PC/Laptop	45	38.1
			Smart TV	61	51.7
Application/Game ^c	F	%	Equipment	f	%
Arcade Fitness	6	5.1	Bike-related	24	20.3
Exergaming	3	2.5	Bike trainer	30	25.4
Peloton	1	0.8	Foot pod	24	20.3
SymGym	4	3.4	Treadmill	60	50.8
Rouvy	1	0.8			

Zwift	46	39	Other	5	4.2
Not specified/other	57	48.3	Period ^e	f	%
eSport-type ^b	F	%	A week-month	26	22
Full body	22	18.6	3-6 months	33	28
Indoor cycling	53	44.9	Six months – 1 year	27	22.9
Indoor running	60	50.8	1-2 years	17	14.4
			2 years +	9	7.6
			Missing	6	5.1

Notes for the table:

n=118

^a Reason for participation | The responses overlap since some participants had dual motives for participating.

^B eSport-type – since respondents were not limited to one response, it is likely that some participate in more than one type of eSport

^c Application or game – respondent had to select their primary preference

^d Platform – respondents could select all applicable platforms, and overlaps are likely

^e Period pertains to how long respondents have been participating in physical eSports

Similarly, game and app developers, specifically eSports equipment manufacturers, can benefit significantly if they have data reporting the equipment used by physical eSports participants. There was 24 or 20.3 percent of the 118 cases that used bike-related equipment, including speed and cadence sensors attached to a bicycle that serves as the input to control the game. Dedicated bike trainers, whether dumb or smart trainers, were used by 30 or 25.4 percent of the respondents. As for indoor running apps or games, 24 or 20.3 percent used a foot pod and whether in collaboration with or independently, 60 or 50.8 percent used a treadmill. These findings align with the eSports types identified. Lastly, this study aimed to determine how long respondents had participated in physical eSports. The findings affirm that physical eSports is a new concept among South African consumers, where only 53 had been engaging with these apps and games for more than six months and 59 between a week and six months. With the first South African sample of physical esports participants and their background on the topic noted, the rest of the results address South African consumers, albeit the samples' perceptions in terms of awareness, attitudes and participation intention (Table 4). After that, the barriers stopping them from playing these games are reflected (Table 5). Considerations for the three perception-based scales are that the 14-item total scale delivered a Cronbach alpha value of 0.932 and all independent scales above 0.70, indicating their internal consistency reliability (Malhotra, 2020).

Table 4: Descriptive statistics, t-values, p-values, and reliability.

Latent factors	Mean±Std. dev.	t-value	p-value	<i>a</i>
Awareness	4.42±0.899	22.292	<0.001	0.829
Attitude	5.02±0.837	39.491	<0.001	0.899
Participation intention	4.90±0.981	31.165	<0.001	0.928

Notes: Statistically significant at $p < 0.05$

n=474

Possible caveats that need to be addressed when reporting South African consumers' perceived awareness of physical eSports are, a. it seems the respondents misinterpreted this form of eSports with the better-known console-based eSports and b. became aware of physical eSport when completing this study's questionnaire, thereby proving challenging true physical eSports awareness. Nonetheless, this study reports that general South African consumers are somewhat familiar with and aware of this eSports format and that this perception is statistically significant (mean = 4.42±0.899; $p=0.001$; $p<0.05$). The most vital and positive results are that SA consumers have an overwhelmingly statistically significant positive attitude towards physical eSports (mean = 5.02±0.837; $p=0.001$; $p<0.05$) and likely associate with the benefits it might provide. This was also the highest mean score recorded. The fact that a very high mean score was recorded for South African consumers' intention to participate in physical eSports at a statistically significant positive level (mean = 4.90±0.981; $p=0.001$; $p<0.05$) is promising to eSports stakeholders such as game/app developers, equipment manufacturers, resellers and the like, as they can easily target a willing consumer segment.

Although, despite these overwhelmingly positive perceptions recorded by the sample, the reality is that most South African consumers, as represented by 75.1 percent of this study's sample, have not

participated in this sporting format yet in 2022, which undoubtedly confirms that physical eSports is a novel concept to them. Table 5 outlines the barriers to physical eSports participation and clarifies the opinions of non-user respondents (n=356).

Table 5. Barriers to physical eSports participation

Barriers	f
Preference for traditional sports	88
Unfamiliar with the technology/games	67
Not having the resources	64
Expensive/waste of money	37
Not having the time	33
Lack of interest	21

Notes for the table:

Respondents could select a maximum of two reasons.

The main barrier associated with physical eSports participation were a preference for traditional sports. In South Africa, sport has allowed people from all over the country to unite, celebrate momentous moments, and socialise at sporting events. Sport is engrained in the local culture, justifying this response. With the main barrier being a preference for traditional sports, physical eSports stakeholders have a massive task at hand if they want to sway this preference. As expected with any new technology, a major barrier was that South Africans are unfamiliar with physical eSports technology and games. Moreover, advanced technology, paired with the intricacy and equipment required to play physical eSports games, is expected to be expensive. This sentiment was shared by a minority of the sample (8.7%). The third ranking barrier related to needing more resources to participate in physical eSports, referring to the funds, equipment, and physical space. Several solutions are provided in the next section, but this typically occurs with new inventions. Lastly, 8.15 percent of the responses were allocated to a lack of time as a barrier and 5.34 percent to a lack of interest. With these barriers noted, the following section sums up the study's findings and states the various implications and recommendations in addressing South African consumers' physical eSports perceptions and participation barriers.

IMPLICATIONS AND RECOMMENDATIONS

This study's investigation revealed important points that eSports brands, app and equipment developers, resellers and marketers, to their benefit, should consider and capitalise on to target South African consumers more effectively.

The good aspects include:

- The global physical eSports market will expand significantly in the next few years, and some games are Olympic-level rated.
- South Africa has representation on an international level, which includes James Barnes, that competed against 15 international male cyclists in the 2023 Olympic eSports series (Zwift), Ashleigh Moolman-Pasio, who took the 2020 female UCI Zwift eSports World Championship Title and several other cyclists qualifying for the UCI Zwift eSports World Champs between 2020-2023.
- South African consumers seem to be somewhat aware of physical eSports, have positive attitudes towards this gaming format and intend to participate in the future.
- 58.9 percent of South African consumers are willing to spend between R101 and R500+ on a monthly gaming subscription [R101-R300 (38%), R301-R500 (15%), R500+ (5.9%)].
- The most preferred platforms were smart TVs (51.7%), followed by mobile devices such as smartphones (45.8%), personal computers or laptops (38.1%) and tablet devices (13.6%), indicating that apps and games must be optimised accordingly.

The downsides are:

- There is not enough research available on the topic of eSports, let alone physical eSports – proving challenging for these stakeholders to make data-driven choices.
- South Africa shows low adoption and slow growth potential for the physical eSports market, as supported by the 75.1 percent of this study sample not playing yet.
- Most South Africans, albeit those in this study's sample, prefer traditional sports, where other barriers included not having the resources, being unfamiliar with the technology/games, being too expensive or seen as a waste of money, not having the time and a general lack of interest.

Regardless, there are unique opportunities for physical eSports stakeholders, specifically game and equipment developers and marketing professionals, to target South African consumers and increase the awareness of a fun, engaging, safe and healthy way to participate in sports while being part of global sporting communities.

These are some consequent recommendations with managerial and practical implications:

1. The abovementioned stakeholders should create awareness of their games and equipment on a larger scale, not only targeting existing athletes (be it professional or not) on tracking platforms like Strava, but the general population using channels they frequent, namely YouTube Ads integrated with popular channels, using content creators who general consumers tend to follow and imitate, targeted ads on various social media platforms.
2. A combined effort of increasing physical eSports awareness and participation is for game and equipment developers to partner with health centres, including gymnasiums, to either replace the conventional equipment with their smart trainers or to integrate their games with the centres existing infrastructure.
3. Addressing the need for more resources, physical eSports stakeholders should partner with recreation facilities, universities and private fitness centres like gymnasiums and integrate physical eSports equipment in their service offering. This will increase awareness of and accessibility and effectively target both generations.
4. These stakeholders should partner with South African professional athletes, like James and Ashleigh, who had exposure at a top level, to promote physical eSport participation. At the time of this paper, Ashleigh has established a global eSports Club on Zwift called the Rocacorba Collective, with “the mission to revolutionise the indoor e-cycling experience by creating an inspiring, uplifting and safe space for women to come together to cycle, whatever their level or experience” (Rocacorba Collective, 2023). Having national athletes as inspiration will inspire both male and female cyclists in the country and abroad.
5. These stakeholders, specifically marketers, should emphasise the benefits of physical eSports and follow the same advertising and exposure channels mentioned under points 1 and 2. With the benefits emphasised, more consumers will be willing to spend a premium on a monthly subscription.
6. The identified barriers are the most significant hurdle to physical eSports participation increase and market growth. These stakeholders are tasked with changing South African consumers’ perceptions in line with the barriers:
 - a. firstly, convince consumers that physical eSports games are not necessarily a replacement for traditional sports but rather a supplemental tool they can use as it offers them more time to play their preferred game in the comfort of their homes. They should also be informed that these eSports games enhance their on-field skills, and they can prepare and practice multiple scenarios before a match or race.
 - b. secondly, provide clarity as to the games, subscriptions and equipment needed to play specific games so that consumers can correlate their resources and determine their accessibility to physical eSports games. By implementing point 2, namely partnering with health centres, the consumer already has a membership and would not need additional resources to play these games.
 - c. thirdly, unsurprisingly, consumers are mostly unfamiliar with how these games are played, and this can quickly be addressed by collaborating with content creators such as the Global Cycling Network (GCN), DesFit, Shane Miller - GPLama and DC Rainmaker on YouTube, who are the eSports leaders with millions of followers. These creators have various tutorials, blog posts and live sessions explaining multiple details associated with these games.
 - d. The perception of it being too expensive or a waste of money can easily be overcome if these stakeholders emphasise the benefits and how it can contribute to their health, social life and a general sense of joy. Consumers are willing to spend a premium on an item or experience that offers them value for money or holds extraordinary benefits.

CONCLUSION

Physical eSports is expected to grow in South Africa, albeit slowly, and as with many Western countries, will eventually become mainstream. For physical eSports apps, equipment developers,

and manufacturers to effectively target the appropriate customer segments, they need access to literature that can guide their efforts. To this end, this study addressed South African consumers' physical eSports perceptions and participation barriers by first generating a sample profile, explaining background information of the 24.9 percent who are playing these games, addressing consumers' awareness, attitude and participation intentions and finally revealing the barriers. Given that this eSports format is in its infancy, practically and specifically as a research theme, several future studies are recommended. Future suggested research to guide marketing and industry efforts should investigate behavioural aspects, perceptions and adoption behaviour related to physical eSports apps, games and live events in South Africa and abroad. Obtaining data from a more extensive, perhaps international sample is also advised to gain better insights and draw comparisons.

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Examining determinants of Chat banking continuous use intentions in South Africa: Technology Acceptance Model (TAM)

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Keywords: engagement, experience, trust, continuous use intention, Technology Acceptance Model

ABSTRACT

From this year, electronic banking management, mainly operating Chat banking, must apply the potential P3, originated on possibilities, pioneering and progress. This study was conducted using a quantitative research method. The non-probability sampling method used to select the respondents was convenience sampling. A sample size of 400 participants was selected, and 373 managed to complete the questionnaires. This provided a 93.25% response rate, tabulated into Statistical Package of Social Science (SPSS) version 28 and AMOS version 28. The results indicate that there are possibilities that pioneering Chat banking can help progress online banking services as the TAM's construct of perceived ease of use influences consumers' experience and engagement behaviour for Chat banking. Its usefulness also impacts trust, collectively as the determinant of continuous use intention for this technology in the banking sector of South Africa. The study's theoretical and practical contributions are discussed.

INTRODUCTION

The banking sector has undergone a significant digital transformation in recent years, enabling possibilities for customers to conduct transactions and access banking services through various digital platforms (Kitsios, Giatsidis, and Kamariotou, 2021). Chat banking, which allows customers to use messaging apps like WhatsApp and Facebook Messenger to interact with their banks and carry out banking transactions, has gained popularity amongst banking customers (Rajgopaul, 2021). However, the research question in this study measures the degree to which South African banking customers progress with adoption and intend to continue using Chat banking services, which still needs to be determined. The study fills this information gap by evaluating South African customers' perceived ease of use and usefulness and their engagement and experience with Chat banking services. By doing so, this research offers valuable insights into how Chat banking benefits can be enhanced to serve banking customers in South Africa better.

In South Africa, roughly 20 million people use smartphones, and about 43% of South African smartphone users use mobile bank apps (Thusi and Maduku, 2020). As digitalisation has enabled a rapid change in the financial services industry, social media applications and Chat banking have become options for banking (Qoma, 2020). These digital innovations transform the banking sector with emerging technologies such as Chatbots and conversational interfaces, increasing their popularity among customers (Lugovsky, 2021). Interestingly, prominent South African banks, for example, Absa, FNB, and Nedbank have pioneered Chat banking services. With messaging

platforms like WhatsApp and Facebook Messenger, customers now use these services to execute financial operations, including balance inquiries, cash transfers, and billing payments. However, it has yet to be known which factors influence customers in South Africa to adopt and continue to use these services.

Over 90% of South Africans have access to smartphones, facilitating Chat banking due to the country's rapid technology adoption (IOL, 2021). To counteract the loss of socialisation, many banks still progress toward implementing web chat to engage with users. Chat banking is an important topic to be researched as it is relatively new in the banking sector. There is currently not enough literature that explains how the Technology Acceptance Model (TAM) constructs of perceived ease of use and usefulness, customers' experience and engagement, including their trust, could determine continuous use intentions of Chat banking in South Africa. Measuring these constructs is essential because many organisations are launching new systems for customers to adopt, save time and provide information at their convenience (Fiaschi, 2020), e.g., Chat banking.

Sampaio, Ladeira, and Santini (2017) note that there are certain driving factors which positively impact consumers' perception and usage of mobile banking apps, e.g., convenience, ease of use, security, privacy, control, customisation, interactivity and telepresence, among others. According to Davis (1989), perceived ease of use and perceived usefulness are critical features that impact technological acceptance, whilst customer experience and engagement have been linked to retention and brand loyalty (Gentile, Spiller, and Noci, 2007). Research shows that the higher the perceived ease of use of the mobile device for banking transactions, the higher the intention to adopt or use it (Hermann and Rammal, 2010). Further, it has been confirmed that trust is essential in developing long-term connections with customers (McAllister, 1995). This knowledge gap is significant given the potential for Chat banking services to enhance convenience and accessibility in the banking sector. Chat banking services create the possibilities for a more efficient and effective banking experience for customers who may not have easy access to physical bank branches or cannot visit bank branches during working hours (Singh, Singh, Pandey, and Kasture, 2018). Also, Chat banking services could enhance customer engagement by providing a more personalised and intuitive banking experience (Belanche, Casaló, and Flavián, 2019). Other than the positive driving factors which influence the perception and usage of mobile banking apps, Sampaio et al. (2017) mention that there are also some negative experiences which bank consumers have encountered by using mobile banking apps, which relate to bank systems and other customer service-related problems.

In examining these problems, this study will contribute knowledge to help the management and enrich the current literature with a better understanding of how customers' perceived ease of use, usefulness, engagement, and experience with the Chat banking platforms, including trust, can increase continuous use intentions for this technology. Research shows that consumers in South Africa are still hesitant to try electronic banking due to this platform's perceived usefulness and ease of use (Le Duc, Huu, Be, and Minh, 2021). This is a major concern that makes it essential to examine how these factors can determine Chat banking usage. This study mainly questions whether the TAM's construct of perceived ease of use influences consumers' experience and engagement behaviour for Chat banking and if its usefulness impact trust, collectively as the determinants of continuous use intention for this technology in the banking sector of South Africa. The aim is to examine this knowledge gap in the literature and practice. Examining this gap will contribute to insufficient knowledge on how practitioners in the banking sector can progress Chat banking services by improving these factors as determinants of continuous use intentions in this new electronic banking technology. The study contributes insights to the literature explaining how customers' engagement and experience can improve if customers perceive TAM's constructs of ease of use and usefulness of Chat banking and ascertain that if it proves itself to be easy to use and useful for consumers, this will increase their trust, and continuous use intentions. Therefore, assessing these elements as the determinants of customers' continuous use intentions for Chat banking technology contributes to the electronic banking literature and its practice in South Africa.

The following section discusses the theoretical framework of this study built from the literature on technology adoption in the banking sector. This is followed by discussing the development of the hypotheses in the conceptual model, the research methodology, the results, and the conclusion.

LITERATURE

Theoretical framework

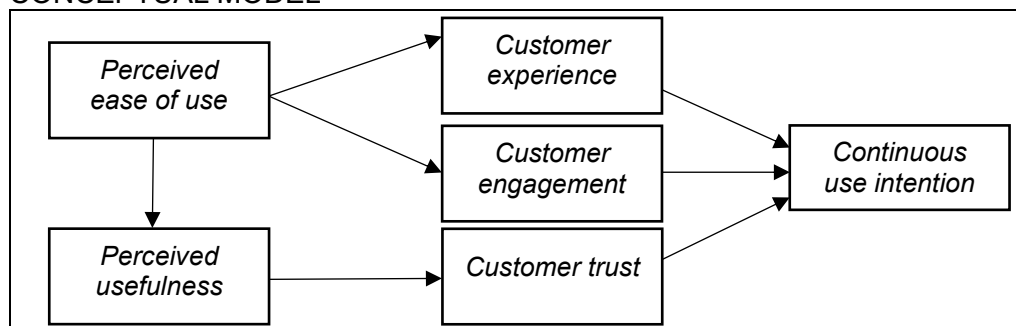
Technology Acceptance Model (TAM) measures the constructs of perceived ease of use and usefulness (Davis, 1989), adopted in this study to measure the perceived ease of use and usefulness of Chat banking technology applications. The TAM constructs of perceived ease of use and usefulness have been modelled in various literature to emphasise their importance. For example, other studies measured how these factors influence user satisfaction with technological systems and mobile applications (Ho, Ho, and Chung, 2019; Ngubelanga and Duffett, 2021). Due to its explanatory power in the technology acceptance theory, perceived ease of use is sometimes included in models alone (Herath and Herath 2019; Mofokeng, 2023; Salameh, Ahmad, Zulhumadi, and Abubakar, 2018; Prasetyo, Tanto, Mariyanto, Hanjaya, Young, Persada, Miraja, and Redi, 2021). However, no study has measured the impact of perceived ease of use on customer experience and engagement as determinants of customers' continuous use intentions for technological systems and mobile applications. This study's approach offers a new contribution to the literature explaining the theory of TAM. Figure 1 shows the conceptual model of determinants of continuous use intentions of Chat banking technology.

CONCEPTUAL MODEL AND DEVELOPMENT OF THE HYPOTHESES

The conceptual model in this study examines the effects of perceived ease of use on experience and customer engagement and whether perceived usefulness influences customer trust, together as determinants of customers' continuous use intentions for Chat banking technology. The aim is to offer new insights into the electronic banking literature and its practice in South Africa.

FIGURE 1.

CONCEPTUAL MODEL



Source: Authors' construct

Perceived ease of use

Perceived ease of use is the degree to which people view how easy the technology can be (Davis, 1989). Some problems experienced by customers when using mobile apps include finding the mobile banking app to be too technical/difficult to use and also that the application itself crashes and customers, therefore, become unable to use the application for what it intended to be used for (Sampaio et al., 2017). Perceived ease of use was also found to significantly influence the perceived usefulness of mobile banking adoption (Mehrad and Mohammadi, 2016; Munoz-Leiva, Climent-Climent and Liébana-Cabanillas, 2017). Ugwuanyi, Uduji and Oraedu (2021) proposed that experience is influenced by the perceived ease of use of banks' Self-Service Technologies (SSTs). They found a significant relationship between the two constructs. McLean (2018) hypothesised that the perceived ease of use of m-commerce mobile apps influences continued customer engagement. Research shows that a bank and its management should correctly address complaints and issues related to mobile banking apps, as these negative experiences directly link to a customer's perception and usage of the particular bank and their mobile app (Sampaio et al., 2017). Therefore,

H₁. Perceived ease of use positively influences the perceived usefulness of Chat banking.

H₂. Perceived ease of use positively influences customer experience with Chat banking.

H₃. Perceived ease of use positively influences customer engagement with Chat banking.

Perceived usefulness

Perceived usefulness (PU) is defined as the degree to which a person feels that using a particular system would improve or enhance their job performance (Davis, 1989). The literature indicates that perceived usefulness impacts trust in digital payment platforms (Siagian, Tarigan, Basana, and Basuki, 2022). Research showed that perceived usefulness affects trust in mobile banking (Ramli and Hamzah, 2021). Susanto, Chang and Ha (2016) found that the perceived usefulness of smartphone banking services significantly influences trust. Therefore,

H₄. Perceived usefulness positively influences customer trust with Chat banking.

Customer experience

Customer experience refers to how customers feel about their interactions with the firm (Watz and Hallstedt, 2020). Prahalad and Ramaswamy (2004) note that customers evaluate their interactions with a firm's offerings based on the magnitude of their experiences. Experience is characterised as the consumer's impression of a business during organisational interactions (Laming and Mason, 2014). The literature states that customer experience results from a series of contacts that elicit a consumer response to a service, a product, or a business. It suggests that customer experience is related to a consumer's interactions, feelings and offerings with the banking platform (LaSalle and Britton, 2003; Shaw and Ivens, 2002). Jain, Aagja and Bagdare (2017) argue that service experience and customer experience are interchangeable constructs. But, the former refers to anyone who experiences the service (customers and non-customers). In contrast, the latter focuses more on customers' responses and feelings after being the intended target of the services offered. In the long run, good customer interaction encourages clients to continue using the company's services (Zaid and Patwayati, 2021). Prior studies (Febrian, Simanjuntak, and Hasanah, 2021; Ghobakhloo and Fathi, 2019) found the effect of benefits offered and customer experience on the re-use intention of mobile banking. Therefore,

H₅. Customer experience positively influences the continuous use of Chat banking.

Customer engagement

Customer engagement refers to "a communication relationship or interaction that occurs through multiple channels between different external stakeholders, such as customers and producers, with businesses and their product offerings" (Zaid and Patwayati, 2021, p. 985). Al-Dmour, Ali and Al-Dmour (2019) further mention that customer engagement is not limited to customers' behaviour but also includes their emotional and cognitive states, where there is an emotional bond between a business and its customers. It is characterised as a consumer's effort and expense in brand transactions (Kumar, Rajan, Gupta, and Pozza, 2019). Hepola, Leppäniemi and Karjaluo (2020) report that customer engagement is positively related to the continuance intention of mobile music users. Therefore,

H₆. Customer engagement positively influences the continuous use of Chat banking.

Trust

Trust refers to one party's confidence in an exchange partner's reliability and integrity (Morgan and Hunt, 1994). As a result, trust and safety concerns are more critical in smartphone banking than in other online banking forms (Kim and Kang, 2012). Literature shows that trust is crucial to Internet banking adoption (Kaabachi, Mrad, and Petrescu, 2017; Mukherjee and Nath, 2003; Salem, Baidoun, and Walsh, 2019). Ghobakhloo and Fathi (2019) report that post-use trust significantly positively affects the repeated use of mobile banking applications. Trust is positively related to continuance intention with mobile banking apps (Poromatikul, De Maeyer, Leelapanyalert, and Zaby, 2020). Therefore,

H₇. Customer trust positively influences the continuous use of Chat banking.

RESEARCH METHODOLOGY

Sampling

Population refers to the total number of groups the research is trying to make conclusions about (Hair, Risher, Sarstedt, and Ringle, 2019). This study's population consisted of consumers using Chat banking in South Africa. Sample refers to a group within the population that researchers want to collect data from, and the sample size must represent the population (Hair et al., 2019). This study's sampling included Chat banking users who were potential volunteers to participate in the survey. The non-probability sampling method used to select the respondents was convenience sampling. A sample size of 400 participants was selected, and 373 managed to complete the questionnaires. This provided a 93.25% response rate, tabulated into Statistical Package of Social Science (SPSS) version 28 and AMOS version 28 for multivariate statistical analysis. This study used Hair's (2019) recommendation to use ten repetitions of the indicator means from the analysis sample as the most native benchmark for assuming the sample size is large enough.

Questionnaire development

This study designed a questionnaire with a screening question - "Have you used Chat banking services in the past six months?" - to ensure the inclusion of only the respondents who have recently used Chat banking. In section A, the questionnaire measured the demographic data such as age, gender, services used, platform used, etc. Section B measured multi-dimensional scale items adapted from pre-validated scales.

Five items measuring Perceived ease of use (PEU) were adopted (Foroughi, Iranmanesh and Hyun, 2019). 5-items measuring Perceived usefulness were adopted from Kitsios et al. (2021). 6-items of Cognitive & Affective engagement were adopted (Hijazi, 2022). 4-items measuring experiences were adopted (Thakur, 2019). 4-items measuring trust adopted from Mehrad and Mohammadi (2016). 3-items measuring continuance intention were adopted from Bhattacharjee (2001). All the scale items in this study were measured using a five-point Likert-type scale ranging from (1) strongly disagree to (5) strongly agree. Due to the study requiring considerably large quantifiable data and conducting statistical analysis to examine connections between constructs, the quantitative research methodology was deemed appropriate for the current investigation. An online survey was used to gather responses from respondents, and the time to complete the survey varied according to the pilot test, which ranged from 10 – 15 minutes. Researchers coded and programmed an online questionnaire on Google Forms. Upon completion, a link to this online questionnaire was generated. This link was shared with potential volunteers in the researchers' social networks who were invited to participate in the study. After completing the questionnaire, participants were asked to distribute the link to potential individuals on their contact list, creating a snowball effect for data collection. The cover letter notified participants of their study rights, including their freedom to participate voluntarily or withdraw from the study at any time without any penalties. As a prerequisite of participation, participants had to read and agree or disagree with the terms of participation given in the consent or permission form, which displayed the selection options on the first page of the questionnaire. Furthermore, the researchers' contact information was provided on the questionnaire so potential participants could contact them for any enquiries before participating in this study. Participants could only view the questionnaire if they consent to participate. These are ethics approved in research. The descriptive statistics in Table 1 were conducted on SPSS version 28 to profile the sample.

TABLE 1.

THE SAMPLE PROFILE; n = 373

<i>Demographics</i>	<i>Category</i>	<i>f</i>	<i>%</i>
Gender	Male	183	49.1
	Female	179	48.0
	I prefer not to say	11	2.9
Age	18-24	210	56.3
	25-29	105	28.2
	30-34	49	13.1
	35-39	5	1.3
	40-44	1	0.3

	45-49	1	0.3
	50-54	2	0.5
Platforms for Chat-Banking	WhatsApp	59	15.8
	Facebook Messenger	9	2.4
	Banking App	275	73.7
	Website	30	8.0
Chat-Banking Services app used	ABSA	55	14.7
	Standard Bank	69	18.5
	FNB	130	34.9
	Capitec Bank	81	21.7
	Other	38	10.2
Frequently Used Services	Checking your balance	85	22.8
	Buying electricity	33	8.8
	Purchasing airtime and data	79	21.2
	Processing payments	92	24.7
	Resolve a query or complaint	81	21.7
	Other	3	0.8
Frequency of the services used	<5 times per month	184	49.3
	5 to 10 times per month	99	26.6
	>10 times a month	90	24.1

The total sample of 373 responses accounted for a 93.2% response rate. Approximately 49.3% of the respondents were males, and 48.2% were females. Only a few, 2.9%, preferred not to say their gender. 56.3% majority of the respondents were in the age category between 18 – 24 years old. Almost 73.7% of the respondents use Banking Apps, followed by 15.8% who use WhatsApp, and only 8% use Chat banking websites. 34.9% of the respondents use the FNB app, 21.7% use the Capitec Bank app, and 18.5% use the Standard Bank app. The most frequently used services on Chat banking are processing payments (24.7%), followed by checking the balance (22.8%), and resolving queries or complaints (21.7%). Many respondents, 49.5%, used Chat banking services less than five times per month, followed by 26.6% who used the services between five to ten times per month, and 24.2% used the services more than ten times a month.

DATA ANALYSIS

Measurement model

The study used AMOS version 28 to conduct Confirmatory Factor Analysis (CFA) from the sample size of 373. The measurement model analysed the Maximum Likelihood Estimates to assess the measurement properties of the scale items (Anderson and Gerbing, 1988). The results in Table 2 show the significant estimates of regression weights, but other constructs had scale items below 0.7. According to Hair et al. (2019), a factor loading of 0.7 and above shows good scale reliability. All the items below 0.7 were deleted, except PEU1 = 0.699, which was considered close to 0.7. Other studies adopted this value (see Arifin & Yusoff, 2016; Mofokeng, 2023). Despite this, all the factor loadings above 0.7 showed good internal consistency reliability. Then, calculated estimates of the CFA in Table 2 show a significant Chi-square/degrees of freedom ($\chi^2 = 474.504/df = 237$; $\chi^2/df = 2.002$, $p < 0.000$), below 3. CFA model fit indices showed the following model fit indices: comparative fit index (CFI) = 0.960; Tucker-Lewis coefficient (TLI) = 0.950; incremental fit index (IFI) = 0.961; relative fit index (RFI) = 0.904; normed fit index (NFI) = 0.924; and root mean square error of approximation (RMSEA) = 0.052. Bentler and Bonett (1980) and Bollen (1986) considered these model fit indices appropriate.

Results of the assessment of the discriminant validity of the measurement model shown in Table 3 indicate that the constructs had Composite Reliability (CR) values above 0.7 (Hair et al., 2019) and Average Variance Extracted (AVE) values exceeding 0.5 (Fornell and Larcker, 2001). These results show a convergent validity of the constructs in the study. Founded on these results, it can be concluded that discriminant validity was met. The square root of each construct's AVE ($\sqrt{AVE}$) and

its correlation coefficients with other constructs was more significant than the corresponding correlation coefficients, indicating sufficient discriminant validity (Fornell and Larcker, 2001).

TABLE 2.
STANDARDISED REGRESSION WEIGHTS

Code	Item	β	t	α
ENG ¹	I often think about this bank when using its chat banking service.	-	-	0.910
ENG ²	I feel very positive when I use this bank's chat banking service.	0.743	Fixed	
ENG ³	Using this bank's chat banking service makes me happy.	0.842	16.032	
ENG ⁴	I feel good when I use this bank's chat banking service	0.861	16.356	
ENG ⁵	I'm proud to use this bank's chat banking service.	0.782	14.864	
ENG ⁶	I spend much time using this bank's chat banking service.	-	-	
EXP ¹	The layout of chat banking is appealing.	-	-	0.865
EXP ²	The response is always returned promptly when communicating through chat banking.	0.793	16.476	
EXP ³	The response offered by chat banking is always up-to-date.	0.839	17.409	
EXP ⁴	An accurate response is always returned when communicating through chat banking.	0.833	Fixed	
PEU ¹	Learning to operate chat banking is easy for me.	0.699	14.819	0.882
PEU ²	It is easy to use chat banking to do banking services.	0.783	17.315	
PEU ³	Interaction with chat banking requires little mental effort.	0.729	15.703	
PEU ⁴	My interaction with chat banking is clear and understandable.	0.828	18.745	
PEU ⁵	It is easy to use chat banking to do what I want it to do.	0.839	Fixed	
PU ¹	Using chat banking enables me to access banking services more quickly.	0.754	15.187	0.889
PU ²	Using chat banking makes it easier to access banking services.	0.799	16.284	
PU ³	Using chat banking enhances the effectiveness of my banking activities/services.	0.819	16.772	
PU ⁴	Using chat banking would improve the quality of the banking transactions performed.	0.776	Fixed	
PU ⁵	Chat banking is useful for my banking needs.	0.850	17.524	
TRS ¹	I trust this chat banking service.	0.772	15.154	0.903
TRS ²	This chat banking provides services in my best interest.	0.864	17.133	
TRS ³	This chat banking provides sincere and genuine banking services.	0.828	16.379	
TRS ⁴	This chat banking performs provides services well.	0.762	Fixed	
CI ¹	I would continue to use chat banking for my banking needs.	0.833	Fixed	0.926
CI ²	Continuing to use chat banking for handling my banking transactions is something I will do in the future.	0.913	22.121	
CI ³	I continue to see myself using chat banking to handle my banking needs.	0.897	21.614	

Note. (CFA) = Confirmatory Factor Analysis (α) = Cronbach alpha (>0.7); Continuous Intention to Use; EXP = Experience; ENG = Engagement; PEU = Perceived Ease of Use; PU = Perceived Usefulness; TRS = Trust.

TABLE 3.
DISCRIMINANT VALIDITY

	CR	AVE	CI	EXP	ENG	PEU	PU	TRS
CI	0.913	0.777	0.882					
EXP	0.862	0.676	0.460	0.822				

ENG	0.883	0.653	0.603	0.527	0.808			
PEU	0.884	0.605	0.592	0.581	0.517	0.778		
PU	0.899	0.640	0.653	0.406	0.562	0.643	0.800	
TRS	0.882	0.652	0.608	0.563	0.633	0.652	0.595	0.808

Note. Composite Reliability (CR) >0.7; Average Variance Extracted (AVE) >0.5; Bold values = $\sqrt{\text{AVE}}$.

Structural model

The structural model was tested using AMOS version 28. This model specifies that means (of exogenous variables) and intercepts (in the equations for predicting endogenous variables) are explicit model parameters (Anderson and Gerbing, 1988). The model fit results indicated a significant Chi-square/degrees of freedom ($\chi^2 = 677.881/\text{df} = 245$; $\chi^2/\text{df} = 2.767$, $p < 0.001$), below 3. The structural model's Model fit indices showed the following: CFI = 0.927; TLI = 0.911; IFI = 0.928; RMSEA = 0.069. Bentler and Bonett (1980) and Bollen (1986) considered these model fit indices appropriate. Table 5 shows the results of the estimates of standardised regression with the t -values above 1.96 and the significant p -values (e.g., $p < 0.001$ and $p < 0.01$).

Table 5. Results of the estimates of standardised regression

Dep.	Indep.	Estimate	t -value	p -value	Result
CI	<--- EXP	0.125	2.386	0.017	Accepted
CI	<--- ENG	0.358	6.459	0.001	Accepted
CI	<--- TRS	0.389	7.172	0.001	Accepted
ENG	<--- PEU	0.575	9.585	0.001	Accepted
EXP	<--- PEU	0.606	10.515	0.001	Accepted
PU	<--- PEU	0.698	12.034	0.001	Accepted
TRS	<--- PU	0.647	10.517	0.001	Accepted

Note. $p < 0.001^{***}$; $p < 0.01^{**}$

DISCUSSION

The findings of this study suggest that the TAM's construct of perceived ease of use influences consumers' experience and engagement behaviour for Chat banking and being useful impacts trust, collectively as the determinants of continuous use intention for this technology in the banking sector of South Africa. In terms of the hypotheses proposed in this study, the results showed that perceived ease of use positively influences the perceived usefulness of Chat banking. In prior studies, perceived ease of use was also found to significantly influence the perceived usefulness of mobile banking adoption (Mehrad and Mohammadi, 2016; Munoz-Leiva, 2017). In addition, the results indicate that perceived ease of use positively influences customer experience with Chat banking. This result supports the research showing that a bank and its management should correctly address complaints and issues related to mobile banking apps, as these negative experiences directly link to a customer's perception and usage of the particular bank and its mobile app (Sampaio et al., 2017), perhaps in this instance, Chat banking. Further, perceived ease of use positively influences customer engagement with Chat banking. This result supports the findings by McLean (2018), showing that the perceived ease of use of m-commerce mobile apps influences continued customer engagement. Therefore, H1, H2, and H3 were supported. The results further indicate that perceived usefulness positively influences customer trust in Chat banking. This result supports the literature indicating that perceived usefulness impacts trust in digital payment platforms (Siagian et al., 2022). The literature showed that perceived usefulness affects trust in mobile banking (Ramli and Hamzah, 2021; Susanto et al., 2016). Therefore, H4 is supported.

Furthermore, H5 is also supported in this study, based on the result demonstrating that customer experience positively influences the continuous use of Chat banking. Good customer interaction encourages clients to continue using the company's services (Zaid and Patwayati, 2021). This result was also found in prior studies indicating the effect of customer experience on the re-use intention of mobile banking (Febrian et al., 2021; Ghobakhloo and Fathi, 2019). The findings revealing that customer engagement positively influences the continuous use of Chat banking support the conclusions by Hepola et al. (2020), who report that customer engagement is positively related to

the continuance intention of mobile music users. Therefore, H6 is also supported in this study. Lastly, although trust is a crucial determinant of Internet banking adoption (Kaabachi et al., 2017; Mukherjee and Nath, 2003; Salem et al., 2019), the results validate the view that customer trust positively influences the continuous use of Chat banking. This aligns with the literature showing that post-use trust significantly positively affects the repeated use of mobile banking applications (Ghobakhloo and Fathi, 2019). Therefore, trust positively relates to continuance intention with mobile banking apps (Poromatikul et al., 2020), which supports H7. From these results, the study offers managerial implications and recommendations.

Managerial implications and recommendations

The results of this study inform the practitioners how the theoretical framework could improve TAM theory or how this theory could look into this area based on the findings of this study. The study contributes to understanding this framework or the theoretical foundation of TAM. Previous studies also identified several factors in the way they influence the continuous use of mobile banking applications. It was indicated by Sampaio et al. (2017) that there are also some negative experiences bank consumers have encountered by using mobile banking apps, which relate to bank systems and other customer service-related problems. Practitioners can improve the perceived ease of use, which significantly influences the perceived usefulness of mobile banking adoption (Mehrad and Mohammadi, 2016; Munoz-Leiva, 2017). In doing so, perceived ease of use will enhance customer experience with Chat banking and positively impact customer engagement with Chat banking. Remarkably, this study expands the literature showing that the perceived ease of use of m-commerce mobile apps could influence continued customer engagement (McLean, 2018). The study contributes to the understanding that experience is influenced by the perceived ease of use of banks' Self-Service Technologies (SSTs), as there is a significant relationship between the two constructs (Ugwuanyi et al., 2021). Similar to the results in other studies, experts can also look at improving perceived usefulness which positively influences customer trust in Chat banking. They will then immediately know that if customers perceive Chat banking as useful, this will also affect customer trust, similar to the recommendations on digital payment platforms (Siagian et al., 2022) and mobile banking (Ramli and Hamzah, 2021; Susanto et al., 2016).

Interestingly, this study's result showing that customer engagement positively influences the continuous use of Chat banking contributes to the literature showing that customer engagement is positively related to the continuance intention of mobile music users (Hepola et al., 2020). Considering Chat banking, the study's findings contribute to the prior studies validating the effect of customer experience on the continuous use intention of mobile banking (Febrian et al., 2021; Ghobakhloo and Fathi, 2019). Practitioners can improve customers' trust as an essential determinant of Internet banking adoption (Kaabachi et al., 2017; Mukherjee and Nath, 2003; Salem et al., 2019). This may increase customers' trust to continue to use Chat banking. This contributes to the literature showing that post-use trust significantly positively affects the repeated use of mobile banking applications (Ghobakhloo and Fathi, 2019; Poromatikul et al., 2020).

The practitioners must plan to consider factors such as perceived ease of use, usefulness, experience, engagement, and trust of Chat banking in the regular practice of Internet banking. Simplifying the TAM's construct of perceived ease of use will enhance consumers' experience and engagement behaviour for Chat banking and its usefulness impacts on trust, jointly as the elements of continuous use intention for this technology in the banking sector of South Africa.

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A risk and trust assessment of the intention to use online banking: A Namibian perspective

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ABSTRACT

Performing financial transactions using internet-based applications such as online banking poses various security and privacy risks that can influence the use of online banking. In addition, trust is essential in the relationship between banks and customers since banks are responsible for safely storing and investing consumers' money. However, limited research currently investigates these key constructs within the banking environment. Therefore, this research aims to test the influence that perceived risk and perceived trust have on the attitude of Namibian online banking customers that can result in the intention to use online banking. In addition, this study also aims to investigate if attitude acts as a mediator in these relationships. Quantitative, descriptive research and structural equation modelling were used to establish that perceived risk negatively influences attitude towards online banking. In contrast, perceived trust positively influences attitude towards online banking. This study furthermore found that a favourable attitude towards online banking will result in the intention to use online banking services. Perceived trust is, therefore an enabler of intent to use online banking and perceive risk is a barrier of intent to use online banking. Furthermore, this study contributed to theory by establishing that attitude act as a mediator, thus, there is a causal sequence between perceived risk, attitude and intention to use online banking and between perceived trust, attitude and intention to use online banking. Banks should therefore develop focussed business and marketing strategies that indicate and communicate the security and reliability of the online banking system.

Keywords: online banking; perceived risk; perceived trust; intention to use; Namibia

INTRODUCTION

Online banking is an important phenomenon in the banking industry since it creates opportunities to meet customer needs and increase revenue, optimise cost structures and enhance customer experiences (Bekhit, Leithy & Sayyar, 2022; Kaur & Arora, 2022; Unengu, Maseke & De Menezes, 2022). Governments in developing countries, such as Namibia, view financial technology, such as online banking, as a means to create financial inclusion, especially among rural and poor citizens (Namahoot & Jantasri, 2022). However, despite the advantages of online banking, many customers are still unwilling to use the system (Chiu, Chiu & Mansumittrchai, 2019), more so in developing countries, such as Namibia, where banking customers are viewed as late adopters of online banking (Unengu et al., 2022).

Performing financial transactions over the Internet provides various benefits, however, these benefits are accompanied by security and privacy risks and as such the use of online banking services is regarded as a risky decision (Kaur & Arora, 2023). Banks are required to store and invest customers' money securely; therefore, trust is essential in the relationship between a bank and its customers (Damberg, Schwaiger & Ringle, 2022). Although risk and trust are important constructs to consider when investigating online banking behaviour, limited research has been published to examine both constructs in one structural model within the online banking environment. Therefore, additional research is needed to investigate online banking customers' risk and trust perception towards using online banking services (Kaur & Arora, 2023). In addition, although various studies have established that attitude acts as a mediator, in the online banking environment, limited studies have investigated

the mediating role that attitude might play in the relationship between perceived risk, perceived trust and the intention to use online banking (Amawate & Deb, 2021; Bananuka, Kasera & Najjemba, 2020; Wang, Yeh, Chen & Huan, 2022).

Therefore, this study aims to contribute to the body of knowledge about the intention to use online banking by investigating the influence of perceived risk and trust on the attitude of Namibian online banking customers. In addition, the study aims to examine if attitude towards online banking can lead to the intention to use online banking services. Finally, this study also investigates if the attitude towards online banking mediates the relationship between perceived trust, perceived risk and intention to use online banking services.

LITERATURE REVIEW AND CONCEPTUAL MODEL

The following section provides an overview of the study's underlying theory, key constructs and hypotheses. The section concludes with a visual presentation of the conceptual model.

STIMULUS-ORGANISM-RESPONSE (S-O-R) THEORY

The Stimulus-Organism-Response (S-O-R) theory is based in psychology and has been extensively used to understand human behaviour better (Cao, Khan, Zaigham & Khan, 2019; Woodworth, 1958). The theory includes a linear correlation between stimuli (external environmental inputs), organism (internal emotions) and response (behaviour) (Kim & Lee, 2019; Sultan, Wong & Azam, 2021). For this study, the S-O-R theory is used to explain how the external factors of perceived risk and trust of online banking customers influence their internal emotions (attitude) towards online banking, resulting in the intention to use online banking (behaviour).

PERCEIVED RISK

Perceived risk refers to the type and intensity of risk experienced by a consumer when they contemplate a purchase decision (Cox & Rich, 1964). More recently, Kim and Chang (2020) indicated that perceived risk also refers to the degree of uncertainty relating to the outcome of a decision and the anxiety of possible loss that customers can experience. Viewed as a multi-dimensional construct, perceived risk includes various types of risk such as financial, performance (functional), psychological, social, privacy and time risks (Lee, 2009; Li, 2013; Wu & Wang, 2005). Perceived risk has been established to negatively influence customer attitude within the travel industry (Sadiq, Dogra, Adil & Bharti, 2022), influencers on social media (Cabeza-Ramírez, Sanchez-Canizares, Santos-Roldan & Fuentes-García, 2022) and digital piracy (Pham, Dang & Nguyen, 2020). Customers' perceptions are impaired when they decide to use online banking services due to the possible perceived risks associated with online banking (Marakarkandy, Yajnik & Dasgupta, 2017). Online banking customers face uncertainty when they cannot foresee the outcome of their decisions, have reliability concerns, and feel physically separated from the bank (Chiou & Shen, 2012). These uncertainties, referred to as perceived risk, can result that wary attitudes arise (Bashir & Madhavaiah, 2015).

Therefore, it is plausible to argue that when consumers perceive online banking services as risky, they will develop negative attitudes towards using these services. Hence, the following hypothesis is formulated:

H1: Perceived risk has a significantly negative influence on Namibian online banking customers' attitude towards online banking among.

PERCEIVED TRUST

Trust refers to the belief of individuals that the promise by other individuals can be relied upon (Rotter, 1967). More specifically, perceived trust signifies the consumers' subjective expectancy that the opposite party will realise their responsibility (Kazancoglu & Aydin, 2018). When trust exists between parties, only then can effective and productive outcomes be achieved and therefore, trust

is viewed as an essential element in developing relationships (Nkoyi, Tait & Van Der Walt, 2019; Zamry & Nayan, 2020). Literature relating to the usage of online services indicates that trust is one of the significant antecedents that influence buying intention and, subsequently buying behaviour (Kaur & Arora, 2020). Trust is even more important in online transactions due to the risky nature of the Internet, the absence of personal touch and the high degree of uncertainty (Damghanian, Zarei & Siah Sarani Kojuri, 2016).

When using e-commerce, Indarsin and Ali (2017) established that perceived trust is a significant determinant of customer attitudes towards the service. Furthermore, Naqvi, Jiang, Miao, and Naqvi (2020) found that higher levels of consumer trust led to a positive attitude towards the social media platform. Also, Vejacked and Štofa (2017) established that a positive attitude towards online banking is shaped when customers trust the online banking system.

Consequently, if online banking customers in Namibia perceive online banking services to be safe, reliable, trustworthy and secure, then these customers may also have a favourable attitude towards online banking. Hence, the following hypothesis is formulated:

H2: Perceived risk has a significantly negative influence on attitude towards online banking among Namibian online banking customers.

ATTITUDE TOWARDS AND INTENTION TO USE ONLINE BANKING

Attitude refers to the extent to which an individual has a favourable or unfavourable evaluation of the behaviour in question (Ajzen, 1991). In contrast, intention refers to the likelihood of an individual performing a specific behaviour (Marakarkandy et al., 2017). In the context of online banking, attitude refers to the customers' favourable or unfavourable evaluation of the online banking system and intention relates to the likelihood that the customer will use online banking.

In theory, attitude towards a certain behaviour relates positively to the intention to engage in the behaviour (Fishbein & Ajzen, 1975). A favourable attitude towards online banking services influences the behavioural intention to use online banking services (Ahmad, Bhatti & Hwang, 2020; Rahi, Ghani & Mi Alnaser, 2017).

Therefore, Namibian online banking consumers that have a favourable attitude towards online banking will also intend to use the system. Consequently, the following hypothesis is formulated:

H3: Attitude towards online banking has a significantly positive effect on the intention to use online banking among Namibian online banking customers.

ATTITUDE TOWARDS ONLINE BANKING AS A MEDIATOR

In the online banking environment, limited research exists that investigate the mediating role of attitude in understanding customer behaviour. More specifically, no research was found that investigated attitude as a mediator in the relationship between perceived trust, risk and intention to use online banking. However, empirically, attitude has been established as a mediator in various other relationships. In the self-service technology bank environment, customer attitude was established to mediate the relationship between servicescape and intention to use self-service technology (Guan, Xie, Shen & Huan, 2021). Maryam, Ahmad, Aslam, and Farooq (2022) investigated the adoption intentions of Islamic banking customers and found that attitude act as a mediator between various factors such as reputation, support and knowledge and the adoption intention of banking services. Amawate and Deb (2021) established that customers' attitude towards brand image mediate the relationship between customer scepticism and patronage intention thus attitude towards a brand is very important to understand and explain customer's patronage intention in cause-related marketing.

Based on these studies, it is plausible to argue that attitude might be a possible mechanism by which perceived risk influences Namibian online banking customers' intention to use online banking services. It is argued that attitude might also be a possible mechanism mediating the relationship between perceived trust and the intention to use online banking amongst Namibian online banking

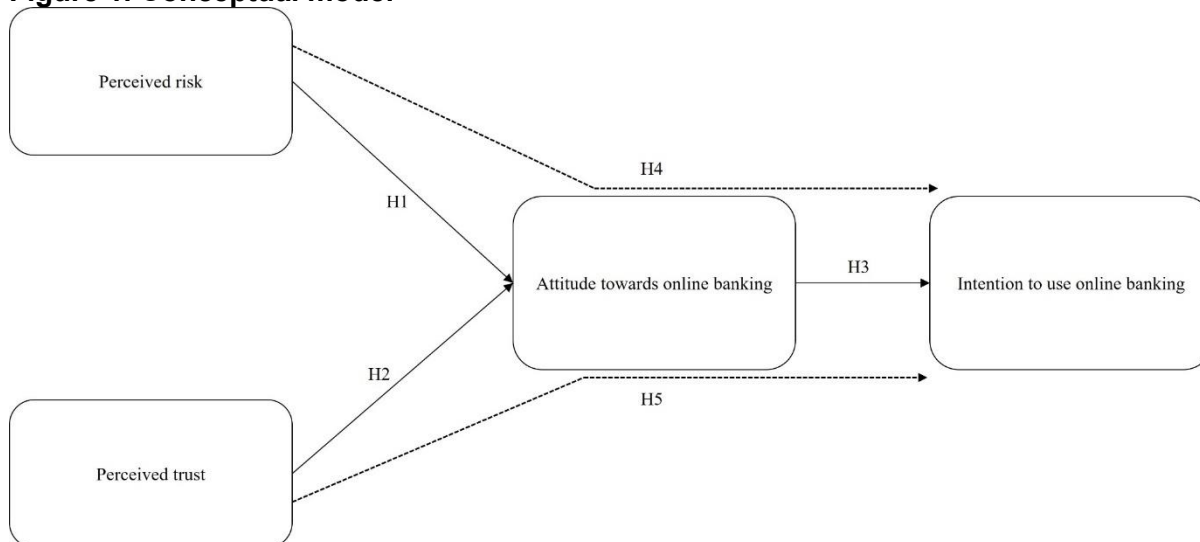
customers. Subsequently, the following hypotheses are formulated:

H4: Namibian online banking customer's attitude towards online banking is a mediator between perceived risk and intention to use online banking.

H5: Namibian online banking customer's attitude towards online banking is a mediator between perceived trust and intention to use online banking.

Figure 1 presents the conceptual model of this study.

Figure 1. Conceptual model



RESEARCH METHODOLOGY

This study made use of a quantitative, descriptive research design. Primary data were collected through self-administrated questionnaires that were distributed on Facebook. The population of the study included males and females residing in Namibia and making use of online banking. Owing to the confidentiality agreements of banks, no sample frame could be obtained and therefore non-probability sampling was used. The non-probability sampling techniques included convenience and snowball sampling and a total of 677 useable questionnaires were collected. The data were analysed using Jamovi and MPlus 8.9.

MEASUREMENT INSTRUMENT

This study used an online questionnaire with screening questions and four sections. The questionnaire commenced with a preface indicating the study's purpose and how the data will be used. The questionnaire furthermore included screening question to ensure that only respondents that are part of the population were included in the study. Previously validated items were used to measure the constructs in the study's conceptual model. Perceived risk was measured using four items adopted from Bashir and Madhavaiah (2015) and Ong and Lin (2015). Five items were adapted from Bashir and Madhavaiah (2015), Ong and Lin (2015) and Sharma and Sharma (2019) to measure perceived trust. Attitude was measured through five items adapted from Bashir and Madhavaiah (2015), Sharma and Govindaluri (2014) and Sharma and Sharma (2019). Finally, the four items that measure intention to use was adapted from Sharma and Sharma (2019) and Tam and Oliveira (2016).

Using a 6-point labelled-Likert scale, respondents were asked to indicate their level of agreement for each item where "1" indicated strongly disagree and "6" indicated strongly agreed. The questionnaire also included demographic questions such as age, gender, employment status, home language, marital status, monthly income and highest level of education.

ETHICAL CONSIDERATIONS

This study was approved by the Economic and Management Sciences Research Ethics Committee

(EMS-REC) of the North-West University (No. NWU-00888-20-A4) and was classified as a minimal risk study.

RESULTS

DEMOGRAPHIC PROFILE

The study obtained 677 usable questionnaires. The sample included an almost equal split in terms of gender (females: 58.1%, males: 41.9%). 44% of the sample are employed by an organisation, 16.4% are self-employed and 23.6% of the respondents indicated that they are retired. The majority of the sample's home language is Afrikaans (46.8%), followed by English (19.5%) and Oshiwambo (14.3%). 43.9% of the sample indicated that they are married, 22.6% are a widow/widower and 20.8% regard themselves as single. In terms of monthly income, the majority of the sample (42.2%) earn a monthly salary of between N\$0 - N\$25000. 26% of the sample earn a monthly salary of between N\$25001 and N\$ 50000 and 12.3% earn between N\$50001 and N\$150000 per month. Only 0.60% of the sample earns a monthly salary of more than N\$750000. 31.3% of the respondents indicated that they hold a degree, 17.1% of the sample holds a Certificate and 11.5% of the sample indicated that matric is their highest level of education.

RELIABILITY AND VALIDITY MEASURES

Cronbach's alpha values were used to determine the internal consistency of the measurement instrument. The Cronbach's alpha values ranged between 0.71 and 0.95, which indicated that the measurement instrument had internal consistency (Hair, Ortinau & Harrison, 2021). Convergent and discriminate validity were measured by performing a Confirmatory Factor Analysis (CFA.) As indicated in Table 2, the measurement instrument had convergent validity, since the construct reliability (CR) values were above 0.70 and the average variance explained (AVE) of each construct were above 0.50 (Hair, Black, Babin & Anderson, 2019).

Table 2. Convergent validity of the measurement instrument

Construct	Construct reliability (CR)	Average variance explained (AVE)
Perceived risk	0.81	0.52
Perceived trust	0.96	0.84
Attitude	0.97	0.88
Intention to use	0.97	0.88

The Fornell and Larcker (1981) criterion were used to test for discriminant validity. As indicated in Table 3, the AVE values for any two constructs was greater than the squared correlation between them. Therefore, discriminate validity is confirmed.

Table 3. Correlation matrix for the latent variables with average variance explained

Latent variables	Perceived risk	Perceived trust	Attitude	Intention to use
Perceived risk	(0.52)			
Perceived trust	0.06	(0.84)		
Attitude	0.0024	0.39	(0.88)	

Intention to use	0.0018	0.51	0.77	(0.88)

Note: The average variance extracted values of the constructs are indicated on the diagonal in brackets. The correlations were all significant at $p < 0.001$.

MODEL FIT STATISTICS & HYPOTHESES TESTING

Subsequently to the CFA, Structural Equation Modelling (SEM) were used to calculate the model fit of the structural model and test the hypotheses formulated for the study. Table 4 provides the model fit statistics for the structural model.

Table 4. Model fit statistics of the structural model

Indexes	RMSEA	CFI	TLI	SRMR
Structural model	0.116	0.986	0.983	0.065
Recommended values	<0.08	>0.90	>0.90	<0.08

RMSEA – Root mean square error of approximation, CFI – Comparative fit index, TLI – Tucker-Lewis index, SRMR - Standardized Root Mean Square Residual

Although the RMSEA is above the recommended cut-off value, Kenny, Kaniskan and McCoach (2015) indicate that for simple models, the RMSEA might indicate poor fit even though the model fits the data well. Consequently, other fit indexes should also be considered. Therefore, based on the other fit indexes presented in Table 3, the structural model was deemed to have acceptable model fit.

The results of the hypotheses testing are presented in Table 5.

Table 5. Hypotheses testing

Hypotheses	Relationship	β weights	p-value	Result
H1	Perceived risk → Attitude	0.23	0.001	Accepted
H2	Perceived trust → Attitude	0.77	0.001	Accepted
H3	Attitude → Intention to use	0.88	0.001	Accepted

Using bootstrapping with 10000 resamples, the data also indicated two significant indirect effects. Perceived risk had an indirect relationship with intention to use online banking through attitude (0.20; $p < 0.001$, 95% CI [0.13, 0.28]). In addition, perceived trust had an indirect relationship with intention to use online banking through attitude (0.67; $p < 0.001$, 95% CI [0.60, 0.73]). Therefore, H4 and H5 are accepted.

DISCUSSION AND CONCLUSION

This study investigated if trust and risk influence Namibian online banking customers' attitude towards online banking and subsequently, if attitude influences the intention to use online banking. In addition, the study also tested the mediation role that attitudes towards online banking play in the relationship between perceived risk, trust and intention to use online banking. The results indicated that perceived risk has a significant negative influence on the attitude towards online banking amongst Namibian online banking customers. The results extended the findings of Cabeza-Ramírez et al. (2022), Pham et al. (2022) and Sadiq et al. (2022) to the online banking environment and

established that if online banking customers are of the opinion that their online banking information will be misused, that cyber thieves can attack their online banking, that online banking is not secured and that online banking consumes too much time, then these customers will not have a favourable attitude towards online banking. In addition, the study furthermore established that perceived trust has a significant positive effect on the attitude towards online banking within the Namibian banking context. The findings of this study supports the findings of Vejacka and Štofa (2017) and extends the findings of Indarsin and Ali (2017) and Naqvi et al. (2020) to the online banking environment. When online banking customers trust that it is safe to make money transfers using online banking, and believe that online banking is reliable and secure in conducting banking transactions, these customers develop favourable attitudes towards online banking. The study also revealed that attitudes towards online banking result in the intention to use online banking amongst Namibian online banking customers. In support of past research (Ahmad et al., 2020; Rahi et al., 2017), this study established that a favourable attitude towards online banking would result in customers having the intention to use of online banking.

The findings makes a significant contribution to theory by establishing that intention to use online banking is influenced by perceived risk through a causal sequence in which perceived risk influences attitude which in turn influences intention to use online banking. Attitude therefore act as a mediator in the relationship. Furthermore, it was established that attitude also acts as a mediator in the relationship between perceived trust and intention to use online banking.

It can therefore be concluded that perceived trust can be viewed as an enabler of intended online banking use and perceived trust as a barrier to intended online banking use. Banks should therefore highlight in all marketing communications and strategies why online banking can be trusted. Strategies should be formulated to communicate to customers that online banking is safe and secure and is a reliable way to conduct financial transactions. These types of strategies will result in more favourable attitudes towards online banking, subsequently resulting in the intention to use online banking. To decrease the barrier of perceived risk, banks should focus on reducing the risks associated with online banking. Customers should be educated about the security and safety features and that online banking does not require more time and effort but is a system that saves time. Reducing perceived risk associated with online banking will result in favourable attitudes towards online banking that will subsequently result in an increased intention to use online banking.

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Navigating Industry 4.0: A conceptual review of cyber risk, security and resilience in South Africa

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ABSTRACT

Given the substantial rise in cybercrime globally, cyber risk became one of the most prominent corporate threats since the advent of the fourth industrial revolution. Furthermore, cyber risk and related threats increased noticeably in South Africa post-2020. Given their duty of care, local corporate leaders should ensure that their companies implement suitable cybersecurity measures, thereby enhancing their cyber resilience. Propositions are presented based on a conceptual review to guide local corporates in navigating Industry 4.0 by effectively managing cyber threats. An overview is also provided on applicable legislation and regulation on cyber matters. Companies are encouraged to appoint chief information security officers (CISOs) to enhance their cyber security. By reflecting on their level of cyber resilience (i.e. Business Blockers, Cyber Champions, the Vulnerable and Cyber Risk Takers), corporate leaders, CISOs and risk committees can identify key cyber threats and related opportunities. The implications of ChatGPT for cybersecurity warrant future investigation.

Keywords: cyber risk; cybersecurity; cyber resilience; Industry 4.0; South Africa

INTRODUCTION

“As cyber threats evolve, we need to evolve as well. This means evolving both our day-to-day operational strategies and our broader approach to handling global digital challenges” (Wray, 2018). This quote by Christopher Wray, the current director of the Federal Bureau of Investigation, highlights the growing importance of cybersecurity, especially in the context of the fourth industrial revolution (also known as Industry 4.0).

Klaus Schwab (2016), the founder of the World Economic Forum (WEF), describes Industry 4.0 as the “fusion of technologies that is blurring the lines between the physical, digital, and biological spheres”. The fourth industrial revolution is hence building on the third where information technology (IT) and electronics were used to automate production. Yet, the exponential pace of technological breakthroughs during Industry 4.0 is astonishing (Schwab, 2016). As innovative and potentially disruptive technologies largely rely on, *inter alia*, high-speed internet connectivity, machine learning, and artificial intelligence, corporate leaders increasingly focus on the related cyber risks (Akter, Uddin, Sajib, Lee, Michael and Hossain, 2022).

The potential for financial loss, disruption, and reputational damage because of a breakdown in an organisation’s IT infrastructure is known as cyber risk (Aldasoro, Gambacorta, Giudici and Leach, 2022:1; Institute of Risk Management, 2016:8). To counteract cyber risk, corporate leaders could implement several cybersecurity metrics. The term cybersecurity refers to a collection of tools, procedures, and organisational frameworks used to safeguard a company’s IT networks and systems from security lapses and intellectual property rights violations (Craigien, Diakun-Thibault and Purse, 2014:17).

Cyber risks are not independent but interconnected. They furthermore offer global challenges to companies and their stakeholders. In the case of cyber-attacks, first- and third-party losses can be incurred. First-party losses mean that cyber-attacks incur damages to organisational property. Thirdparty losses entail that companies could be liable to pay for damages caused to clients and the public. Although such damages could be short-lived, they might alternatively have a prolonged negative impact on companies (Eling and Schnell, 2016:477).

Cyber risk and security thus warrant more investigation. Focus is placed on South Africa, as the country had the third highest number of cybercrime victims globally since the advent of the Coronavirus pandemic (Dolley, 2021). As numerous employees worked from home, this pandemic brought about considerable cybersecurity challenges (Nunn-Price, 2021). Furthermore, Interpol (2021:9) reported that a staggering 230 million cyber threats occurred in the country in 2021. Cybercrime costs South Africa approximately R2.2 billion per annum (Dolley, 2021). The country's strong financial sector and well-developed stock exchange arguably contribute to making it an attractive target for cybercriminals (CEIC Data, 2022).

Prominent cyber risks in South Africa include phishing, data leaks, distributed denial-of-service (DDoS) attacks and compromised websites (Pieterse, 2021; Van Niekerk, 2017). Phishing is used to collect sensitive information such as login passwords (Zwilling, 2022:3). A DDoS attack entails flooding a target's server with internet traffic, thereby causing the prevention of access to online services and a halt in business operations (Pieterse, 2021:4). In addition, if a hacker alters the code of an organisation's website to affect its confidentiality, availability and integrity, a compromised website becomes unsafe for its legitimate users (Pieterse, 2021:4).

Examples of recent cyber-attacks in South Africa include the leakage of personal details of more than a million Nedbank clients after the bank's marketing agency experienced a data breach (Business Insider South Africa, 2020). Furthermore, Life Healthcare Group (2020) was a victim of a cyberattack during 2020, which was a challenging time for hospitals given the advent of the Coronavirus pandemic. Cyber attackers targeted this hospital group's admissions and processing systems as well as their email servers. Such an attack could have had devastating implications for patients. Yet, Life Healthcare Group was swift to contain the cyberattack owing to their strong cyber resilience (Reuters, 2020).

Cyber resilience refers to a company's capacity to plan for, respond to and recover from cyber threats and attacks (IT Governance, 2023; Accenture, 2021:5). In turn, cyber risk management relates to the capacity of a company to identify, analyse, implement, and monitor cyber risks (IT Governance, 2023). Although these definitions might appear similar, cyber resilience integrates both cybersecurity and risk management within a company's strategic objectives (Accenture, 2021; WEF, 2017:7).

Corporates are stewards of, *inter alia*, clients', employees', and suppliers' information. As such, they should act as good corporate citizens by ensuring the resilience of the shared digital environment (WEF, 2017:3).

Given this context, a conceptual review was conducted to explore cyber risk, security, and resilience in South Africa. As outlined by Frederiksen, Phelps and Kimmons (2018), the goal of a conceptual review is to describe and categorise concepts relevant to the topic under investigation. An overview of applicable legislation and regulation in South Africa is also provided. The country was selected given its vulnerability to cyberattacks and the substantial reported costs of cybercrimes.

Based on the conceptual review, five propositions are offered to enhance cyber resilience in South Africa, namely: 1) corporate leaders should discuss key cyber risks and preventative measures across departments instead of adopting a silo approach; 2) applicable legislation and regulation should be included during regular training on cyber matters offered to employees; 3) the appointment of a Cyber Commissioner should be prioritised to ensure that cyber matters receive adequate attention and to enhance dialogue with various stakeholders; 4) corporate leaders should account for cybersecurity and business strategy alignment when reflecting on cyber resilience; and 5) a dedicated chief information security officer (CISO) can considerably enhance cyber resilience. By accounting for these propositions, local corporate leaders, CISOs and risk committees could enhance their cyber resilience and utilise related opportunities.

CONCEPTUAL LITERATURE REVIEW AND PROPOSITIONS

In this section, cyber risks and preventative measures are outlined. Cybersecurity legislation and regulation in South Africa are then discussed whereafter divergent levels of cyber resilience is explained. The propositions are derived based on the discussed theory and prior research conducted by researchers and practitioners, in line with Frederiksen *et al.*'s (2018) outline of a conceptual review.

PROMINENT CYBER RISKS AND PREVENTATIVE MEASURES

Given the advent of Industry 4.0 and the Coronavirus pandemic, companies globally and in South Africa are increasingly threatened by cyber risks, such as phishing and hacking (Zwilling, 2022; Interpol, 2021; Ernst and Young, 2016; Institute of Chartered Accountants in England and Wales (ICAEW), 2016). Key cyber risks, as identified in literature and practitioner reports, are described in Table 1. Preventive measures are also proposed. The WEF (2019:10) concurs that companies can enhance their cyber hygiene by constantly updating their cybersecurity systems, executing a company-wide authentication process, and focusing on the security of their core cyber platforms and infrastructure related to critical business processes. Strong cyber hygiene thus enables companies to mitigate the cyber risks outlined in Table 1.

TABLE 1:

KEY CYBER RISKS AND SUGGESTED PREVENTATIVE MEASURES

Cyber risk	Description	Preventative measures
Ransomware	Cyber virus that shuts down IT systems or encrypts data, thereby affecting the activities of a victim company by making data and systems inaccessible until a ransom fee is paid.	Enhance staff awareness of this risk. Malware protection should be up to date and software should be frequently updated. Data should also be regularly backed up.
Phishing	Common social engineering technique that is used to collect sensitive information like login passwords. Recipients are tricked to click a malicious link, thereby installing malware and/or giving the hacker access to sensitive information.	Employees should be regularly made aware not to open suspicious or unexpected emails. Companies should implement anti-malware software and employ spam filters to prevent phishing emails from reaching employees' inboxes.
Data leakage due to lost storage devices	The loss/theft of a company's external storage devices containing sensitive and confidential information.	All mobile devices should be password protected. External devices could be encrypted. Companies could also consider the option to remotely wipe a device's storage if lost.
Insider threat	An employee accidentally or intentionally compromising the integrity, confidentiality, and availability of a company's information, network systems and/or premises.	Enhance team awareness of this threat to eliminate careless mistakes. Limit the amount of data that employees can access. Monitoring software could be installed to identify data copying by employees.
Hacking	An outsider gaining access to a company's IT infrastructure for the purpose of exploitation.	Network firewalls and data access security should be installed and regularly verified. Allocate administrative power to specific individuals to timeously enable and remove access to certain systems. User awareness could be enhanced through regular training.

Source: Researchers' construction based on Zwilling (2022:3), Interpol (2021:22), ICAEW (2016:3), Ernst and Young (2016:1).

Phishing is one of the most common cyber risks and can take multiple forms including spear phishing, business email compromise, whaling and social media phishing (Zwilling, 2022). Spear phishing targets specific individuals, thereby allowing customisable communications that appear authentic to the target. A cybercriminal could use business email compromise to impersonate a company's vendor or supplier, thereby convincing them to make payments and/or provide sensitive information that can be exploited (Zwilling, 2022; Commercial and Industrial Security Corporation (CISCO), 2022).

In the case of whaling, senior corporate leaders such as the chief executive officer are typically targeted to obtain their login credentials, as they have access to large amounts of sensitive company information. Social media phishing entails that cybercriminals use social media to profile an individual and then plan a curated attack. In turn, voice phishing entails the usage of fraudulent phone calls to obtain information such as login details (CISCO, 2022).

Cybercriminals are likely to take advantage of IT and human vulnerabilities (Lee, 2021). The creation of generative artificial intelligence tools such as ChatGPT that use software to create humanlike text and voice data further blur the lines between humans and machines (Oremus, 2023). Prominent cyber risks can be mitigated by enhancing employee awareness thereof through regular training and information sessions (Kshetri, 2019; ICAEW, 2016). While it is evident from Table 1 that human error poses a substantial threat to cyber security, properly trained employees can be valuable defensive barriers. As human error vulnerability increases with the size of the workforce having access to corporate systems, companies should also give due consideration to which staff members should have access to certain systems (Sheehan, Murphy, Kia and Kiely, 2021).

Although responsibility for cybersecurity is often fragmented across multiple organisational silos, cybersecurity should be led from the top (Boone, 2017). Corporate leaders should prevent a silofocused approach by encouraging departments to adopt an organisation-wide perspective on cybersecurity. Departments should thus regularly engage on cyber matters (Eling and Schnell, 2016:479). Cybersecurity should not merely be deemed a defensive strategy, but rather an enabler of improved company performance (Boone, 2017).

Proposition 1: Corporate leaders should discuss key cyber risks and preventative measures across departments instead of adopting a silo approach.

More details will now be provided on cybersecurity legislation and regulation that could be dealt with during staff training sessions in the local context.

OVERVIEW OF CYBERSECURITY LEGISLATION AND REGULATION IN SOUTH AFRICA

The local public sector and the country's infrastructure are particularly susceptible to cyberattacks (Pieterse, 2021; Van Niekerk, 2017). PricewaterhouseCoopers (2022:6) confirmed that the threat of cybercrime on infrastructure is a major global concern. As such, various laws were introduced since the 2000s to protect South African citizens and businesses against cybercriminals, including the Electronic Communications and Transactions Act (No. 25 of 2002), the Protection of Personal Information (POPI) Act (No. 4 of 2013) and the Cybercrimes Act (No. 19 of 2020).

The Electronic Communications and Transactions Act regulates unauthorised access to, the interception of and the interference with private data. This Act refers to a number of cybercrime offenses, including computer-related extortion, fraud and forgery and unauthorised access to and tampering with data. If individuals are found guilty of these offenses, it could result in financial penalties and possible imprisonment (Republic of South Africa, 2002).

Section 19 of the POPI Act makes provision for the impact of cybercrime on personal information.

This Act obliges the accountable party to ensure the security, integrity, and confidentiality of personal data in its possession or under its control. A responsible party must prevent "(a) loss of, damage to or unauthorised destruction of personal information; and (b) unlawful access to or processing of personal information" (Republic of South Africa, 2022). Furthermore, companies must identify and

assess any risks that will affect the protection of private data under their control, as well as remedy and continually update safeguards (Republic of South Africa, 2013:32).

In the event of a data breach, companies are required by law to notify the Information Regulator and the affected individuals. This independent body was established in terms of Section 39 of the POPI Act (Republic of South Africa, 2013: 34). Although the Act does not classify cybercrime offenses, it holds institutions in possession of personal data liable for any breaches. Companies are by implication encouraged to enhance their cybersecurity and data protection, thereby mitigating the likelihood of attempted cyberattacks.

The Cybercrimes Act (No. 19 of 2020) came into effect in December 2021 to establish a comprehensive cybersecurity framework in South Africa (Republic of South Africa, 2021; Williams, Fourie and Siyaya, 2021). In line with the cyber risks identified in Table 1, the country's latest cyber Act states that unlawful access and/or interception of data, use of hackware or ransomware, interference with data or computer systems and storage mediums, cyber forgery, cyber extortion, and malicious communications, constitute a legal offense. The penalties for committing a cybercrime offense include fines and/or imprisonment of up to 15 years. In the case of failing to report a material cyber incident to the South African Police Service within 72 hours, a fine of R50 000 can be issued (Republic of South Africa, 2021).

Pertaining to voluntary regulation, the King IV Report on corporate governance urges governing bodies to offer proactive intelligence monitoring to identify and respond to prominent threats, including cyberattacks. Yet, this is the only instance where the word cyber is explicitly mentioned in the King IV Report. Information and technology are recognised as two distinct value creation sources in King IV, in contrast to King III that referred to IT as a collective term (Institute of Directors South Africa (IoDSA), 2016). The latest set of corporate governance guidelines thus highlight the importance of security related to information and technology in the context of Industry 4.0.

Given that banks are regularly targeted by cybercriminals (Interpol, 2021:9), the South African Reserve Bank (SARB), the Prudential Authority and the Financial Sector Conduct Authority published a draft joint standard entitled Cybersecurity and Cyber Resilience Requirements (SARB, 2021). This joint standard applies to all organisations operating in the local financial services industry. The aims of the standard include ensuring that financial institutions create reliable and sound procedures for mitigating cyber risks, promoting good cyber hygiene, and encouraging regular testing of their security controls (SARB, 2021:7).

According to Sutherland (2017) and Griffiths (2017), South Africa lags behind developed economies in terms of cybersecurity legislation and engagements with corporate representatives and citizens on cyber matters. As such, the appointment of a national Cyber Commissioner was proposed in 2022. A Cyber Commissioner could offer advice, establish, and monitor cybersecurity capabilities in the public sector. Furthermore, it is envisioned that a Cyber Commissioner could work with tertiary institutions and the private sector to establish best practices, build capacity and enhance awareness of cyber matters (Breytenbach, 2022:3). A holistic approach to cybersecurity is hence advised by cultivating partnerships between government, companies, universities, and society (Jansen van Vuuren, Leenen, Phahlamohlaka and Zaaiman, 2014). Based on the discussions in the first two sections of the conceptual review, the following two propositions are offered:

Proposition 2: Applicable legislation and regulation should be included during regular training on cyber matters offered to employees.

Proposition 3: The appointment of a Cyber Commissioner should be prioritised to ensure that cyber matters receive adequate attention and to enhance dialogue with various stakeholders.

CATEGORISING CYBER RESILIENCE: A PRACTITIONER PERSPECTIVE

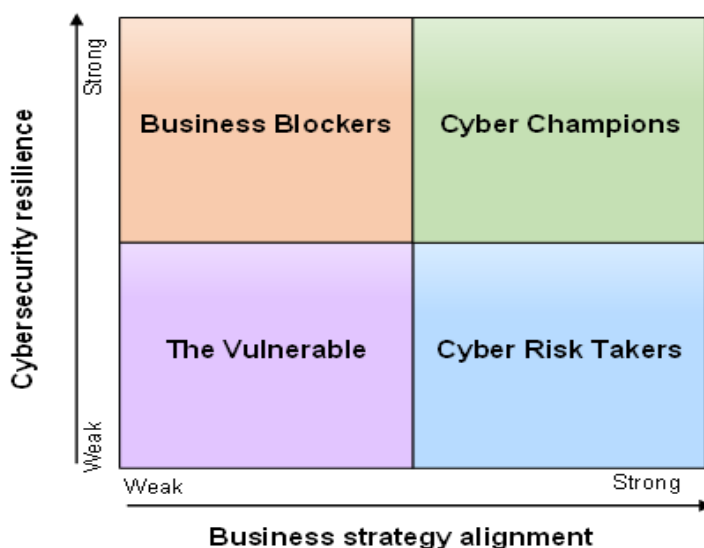
When reflecting on their cyber resilience, companies should account for whether they have strong and secure digital devices and networks. They should also consider whether directors are able to match the pace of technological and digital solutions and risks (WEF, 2017:5). Directors are furthermore encouraged to appoint a CISO to oversee and enhance cybersecurity. The CISO should

regularly communicate with corporate leaders on key matters (Karanja, 2017; Eling and Schnell, 2016:480).

Figure 1 outlines different levels of cyber resilience based on cyber security and business strategy alignment. Accenture (2021), a leading global services company, offers a practitioner perspective on cyber resilience. They surveyed more than 4 700 executives on cyber matters post-2020. Based on the executives' cyber resilience responses, companies are classified as Business Blockers, Cyber Champions, the Vulnerable or Cyber Risk Takers (Accenture, 2021). Each level of cyber resilience illustrates the degree to which companies have integrated their strategies and cybersecurity capabilities. As so-called Cyber Champions have a strong balance between their business strategy and cybersecurity, this quadrant is arguably the ideal cyber resilience position for companies. In contrast, those that are classified as the Vulnerable have low to no alignment of business strategy with cybersecurity. Such companies also typically have low levels of cybersecurity. While Business Blockers focus on cyber resilience, they give less attention to strategic business alignment. An overpowering sense of cybersecurity could thus hinder corporate development in this quadrant. Finally, Cyber Risk Takers have high levels of cyber risk given that a strong business growth strategy takes priority over cybersecurity (Accenture, 2021:6).

FIGURE 1:

LEVELS OF CYBER RESILIENCE



Source: Adapted from Accenture (2021:6)

Accenture (2021:14) noted that Business Blockers tend to experience fewer cyberattacks than Cyber Risk Takers and the Vulnerable. Furthermore, when cyberattacks were successful, Business Blockers had a higher likelihood to quickly detect and remedy such breaches than Cyber Risk Takers and the Vulnerable. Yet, the Business Blockers tended to allocate funds solely towards cybersecurity to the detriment of business strategy. They had the highest percentage of CISOs in the sample. Their CISO-driven spending autonomy might partly explain their focus on cybersecurity (Accenture, 2021:14).

It is essential that CISOs have a proper understanding of their companies' operating environments, vulnerability of assets and prominent cyber risks. Effective CISOs integrate their companies' cybersecurity needs with their business' objectives. Furthermore, CISOs should optimally allocate resources for the proper functioning of cybersecurity while keeping in mind corporate goals (Maynard, Onibere and Ahmad, 2018:67). The CISOs of the Business Blockers quadrant (refer to Figure 1) should thus give more attention to integrating cybersecurity in corporate strategy.

Barasa, Mbau and Gilson (2018) stated that the availability of resources is a key enabler of resilience. Yet, despite substantial cybersecurity budget allocations, the Cyber Risk Takers experienced the most cyberattacks. Furthermore, only a few Cyber Risk Takers appointed CISOs to authorise security budget allocations. Such companies might hence be cash rich but seemed to have limited expertise pertaining to cybersecurity (Accenture, 2021:17-18). A high budget for cybersecurity hence does not, *per se*, translate into better cyber resilience.

Companies classified as Cyber Champions in Figure 1 were able to respond to the detection and remediation of cyber-attacks faster than the companies included in the other three quadrants. Furthermore, Cyber Champions could better protect themselves against data loss (Accenture, 2021:20). The CISOs of Cyber Champions had direct and continuous contact with the leaders of their companies (Accenture, 2021:23), in line with a best practice guideline proposed by Karanja (2017). This discussion highlights the importance of regular engagements on cyber resilience between corporate leaders and CISOs.

Abraham and Sims (2021) conducted interviews with CISOs and other business leaders to reflect on cyber resilience in the context of the Coronavirus pandemic. Their findings show that cyber resilience can no longer be deemed exclusively an IT function. They recommended a comprehensive cyber resilience approach outlining data management and cross-functional responsibilities. Based on Hollnagel's (2011) theory of resilience, it is thus proposed that the directors, managers and CISOs of local companies should focus on the following to enhance their cyber resilience across departments: Anticipate future developments, monitor changes, ensure timely and effective responses, and learn from experience (Groenendaal and Helsloot, 2021). Local CISOs could use this theoretical lens and suggested activities to reflect on their companies' cyber resilience pre- and post the Coronavirus pandemic to develop best practice guidelines.

Proposition 4: Corporate leaders should account for cybersecurity and business strategy alignment when reflecting on cyber resilience.

Proposition 5: A dedicated CISO can considerably enhance cyber resilience.

CONCLUSIONS AND MANAGERIAL IMPLICATIONS

The fourth industrial revolution brought about an era of unprecedented change that offers opportunities for companies to innovate but also for cybercriminals to exploit cybersecurity weaknesses. As companies increasingly become reliant on digital technologies, cyberattacks pose a growing threat to commerce (Sheehan *et al.*, 2021). The usage of cloud services and social media thus became prominent risk management considerations (Lee, 2021). The Coronavirus pandemic further accelerated the adoption of new technologies and, by implication, escalated cybersecurity risks (Nunn-Price, 2021).

A disconcerting rise in cyberattacks is noted in South Africa (Interpol, 2021). The local private sector should thus focus on safeguarding sensitive and confidential company and customer data, especially in light of the POPI Act. Several laws were introduced since the 2000s to offer cyber guidance to local companies. Employees should be made aware of the implications of relevant legislation and regulation during training sessions. Prominent cyber risks and preventative mechanisms should also be covered.

The appointment of dedicated CISOs by local companies is likely to strengthen their cyber resilience. Corporate leaders should caution against a silo cybersecurity approach by encouraging regular discussions on cyber matters across departments. Local boards of directors and managers should be assisted by CISOs to enhance cyber resilience by accounting for cybersecurity and business strategy alignment. In turn, enhanced cyber resilience can substantially impact company performance and, by implication, value creation for a range of stakeholders (Boone, 2017).

SUGGESTIONS FOR FUTURE RESEARCH

The propositions that were derived based on the conceptual review can be included in an interview guide. Such a guide can then be used to conduct interviews with CISOs to reflect on their companies'

perceived strengths and weaknesses related to their cyber resilience level. Interviews can also shed light on the implications of ChatGPT for cybersecurity. A conceptual cyber resilience model can then be developed for the local context based on the outcomes of such a qualitative investigation. The derived model can be refined by incorporating industry-specific aspects.

The cyber resilience of financial services companies operating in various emerging markets, such as Brazil, China, and South Africa can be compared by future researchers, as banks have a high likelihood to be targeted by cybercriminals. Content analysis can be conducted on selected banks' annual reports to code and compare the extent of their disclosures on cyber matters. Attention can be given to whether cyber security matters were merely mentioned, an average discussion was provided, or substantial details were offered.

In line with the opening quote of Wray (2018), more research is required on how companies evolve along with cyber threats. The usage of a survey is thus proposed to gauge the views of selected directors, managers, CISOs and risk committee members on key cyber matters in South Africa pre- and post-2020. Based on their responses, best practice cyber resilience guidelines can then be formulated for future crisis periods. Case study research can also be conducted by focusing on the cyber resilience of local companies that experienced cyber-attacks. The outlined cyber resilience categorisation (Figure 1) can be used to reflect on factors that enhanced or hindered such companies' cyber resilience.

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Time orientation and tone of director pay disclosure pre- and post-2020

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ABSTRACT

Director remuneration has received growing shareholder interest since the advent of the Coronavirus pandemic. Content analysis was conducted on the integrated reports of selected Johannesburg Stock Exchange Top 40 companies between 2017 and 2021 to analyse their disclosure on fair and responsible director remuneration. The extent, tone and time orientation of director pay disclosures were investigated based on King IV's Principle 14. The sampled companies increasingly provided details on key director pay considerations over the research period. Several forward-looking disclosures were also made. While director pay disclosure at the considered companies mostly had a positive tone prior to the Coronavirus pandemic (2017-2019), most of the companies had a negative pay disclosure tone amid the pandemic (2020-2021). Sound remuneration governance is a critical consideration given that South Africa is the most unequal country globally. Transparent disclosure is essential to enhance future deliberations on fair and responsible director pay policies and practices.

Keywords: director remuneration; disclosure; King IV Report; South Africa; Coronavirus pandemic

INTRODUCTION AND RESEARCH OBJECTIVES

The economic shock caused by the Coronavirus pandemic will have a substantial, long-lasting impact on corporate governance policies and practices globally (Gelter and Puauschunder, 2020). Director remuneration is a key corporate governance consideration, as it serves as a fundamental illustration of the agency problem (Maroun and Cerbone, 2020). This problem occurs when managers disregard their obligations and take risks and make decisions to benefit them personally, often at the expense of shareholders (Wiese, 2017).

South Africa offers a well-developed corporate governance framework to companies. Listed companies are subject to several regulatory requirements dealing with disclosure of compensation to executive and non-executive directors (NEDs), including the Johannesburg Stock Exchange (JSE) Listings Requirements, the Companies Act (No. 71 of 2008; henceforth the Companies Act), and the King IV Report on corporate governance (Steenkamp, Dippenaar, Fourie and Franken, 2019).

Executive directors' pay packages typically include a base salary, benefits, short-term incentives (STIs) and long-term incentives (LTIs), thereby resulting in a combination of fixed and variable compensation (Bussin, 2012). Since NEDs are not involved in the day-to-day operations of their companies, they play an essential monitoring role and should offer independent advice on corporate issues. They are mainly compensated by means of fees for the services they provide and for attending board and committee meetings (Institute of Directors South Africa (IoDSA), 2016).

Despite such detailed guidance, local shareholders increasingly raise director remuneration concerns related to the size and format of executive pay packages in the country (Lemma, Mliilo and Gwatidzo, 2020; Viviers, 2015). This trend can be largely ascribed to renowned agency problems at several local companies and escalating inequality. The Gini coefficient is an international standard for determining a country's wealth distribution. This coefficient is determined by analysing the statistical dispersion of income and ranges from 0 to 1. If a country's Gini coefficient exceeds a value of 0.4, the likelihood of social challenges escalates (Bosch, Rossouw, Claassens and Du Plessis, 2010). South Africa's Gini coefficient is 0.63, the highest in the world (The World Bank, 2023).

The level and disclosure of director pay in South Africa are hence contentious issues. Shareholders increasingly demand more transparency in this regard (Deloitte, 2014). Although several researchers have explored the relationship between corporate performance and executive pay (Padia and Callaghan, 2021; Van Wyk and Wesson, 2021; Steenkamp *et al.*, 2019; Mans-Kemp and Viviers, 2018), such studies were largely quantitative in nature, thereby omitting the extent of pay disclosure (Steyn, 2015). According to Zattoni and Pugliese (2021), the disclosure of director pay warrants even more attention since the advent of the Coronavirus disease of 2019 (COVID-19) pandemic. This pandemic presents a unique opportunity to investigate disclosure on director remuneration in the most unequal country globally.

This study was hence conducted to examine disclosures on fair and responsible director pay of selected JSE Top 40 companies pre- and during the Coronavirus pandemic. Content analysis was conducted on the sampled companies' integrated reports based on selected King IV pay guidelines. The objectives of this study were threefold: Firstly, to investigate the extent of disclosure on director pay before and amid the COVID-19 pandemic; secondly, to determine the time orientation of such disclosures, and thirdly, to assess the tone of such disclosures by the sampled companies between 2017 and 2021. The literature review is presented next. Thereafter, the research methodology is outlined, followed by a discussion of the content analysis results. Lastly, conclusions are provided and managerial implications are presented. Recommendations are also offered for directors, remuneration committee members, shareholders, and future researchers to enhance fair and responsible pay policies and practices going forward.

LITERATURE REVIEW

The theoretical lens for the study will be explained, followed by an overview of director compensation components. Thereafter, legislation and regulation on director pay in South Africa will be discussed. Lastly, an overview of prior director pay research conducted in the local context will be provided.

THEORETICAL LENS

The agency theory dominates director pay research. In the context of this theory, managers are deemed agents and shareholders are principals. The agency problem occurs when managers make decisions to benefit themselves, often at the expense of shareholders (Wiese, 2017). Independent NEDs should hence be appointed to monitor managerial decision-making on behalf of the shareholders (Mallin, 2005). Director pay might also be used to partly address the agency dilemma, for instance by allocating shares to executives (Kakabadse, Kakabadse and Kouzmin, 2004).

Yet, asymmetric information will inevitably cause conflicts of interest among managers, directors and shareholders. Transparent corporate disclosure can address asymmetric information related to the agency problem. In-depth disclosure of director remuneration information enables shareholders to criticise director pay policies and detect insufficient pay-performance linkages (Padia and Callaghan, 2021; Cheung, Jiang and Tan, 2010: 261). The agency theory was thus used as the theoretical lens to assess disclosure on director compensation in South Africa pre- and post-2020.

TYPES OF DIRECTOR COMPENSATION

The board of directors serves as the focal point of corporate governance. To perform their duties effectively, the board should comprise a combination of executives, NEDs and independent directors (Wiese, 2017). Executive directors are involved in their companies' day-to-day activities and are employed full-time. By nature of their position, executive directors should have a thorough understanding of company-specific operations. A NED is not involved in the daily operations of the company. The appointment of independent NEDs is hence critical in offering impartial judgment on issues affecting the company (IoDSA, 2016).

The compilation and size of the pay packages of directors vary depending on whether they are classified as NEDs or executives. The NEDs are paid a base fee and fees for attending board and committee meetings as mentioned in the introduction. Executive directors can, *inter alia*, receive

salaries, bonuses, and long-term performance-related rewards (IoDSA, 2016). Remuneration committees commonly propose STIs to reward executive directors with cash bonuses based on financial criteria. To link directors' pay to long-term performance, LTIs such as share options can be allocated (Bohlander and Snell, 2013).

Remuneration committees can thus use incentives to align the interests of executives and shareholders by giving executives an equity stake in the company, in line with the discussed agency theory. Disclosures on LTIs in remuneration reports should include their fair value. Furthermore, the cash value of all deferred STIs and LTIs allocated to directors that were settled during the reporting period, as well as the cash value thereof, should be disclosed (IoDSA, 2016). Following the 2008 global financial crisis, minimum deferral requirements for bonuses and malus clauses for unvested deferred pay, referred to as clawbacks, were introduced in several jurisdictions (Hoffmann, Inderst and Opp, 2022). Director pay guidelines in the local context are outlined next.

LEGISLATION AND REGULATION ON DIRECTOR REMUNERATION

Listed companies in South Africa are subject to several regulatory requirements dealing with disclosure of director pay and other corporate matters, including the Companies Act, JSE Listings Requirements and the King IV Report (Steenkamp *et al.*, 2019). Listed companies are mandated to declare the salaries, fees and other financial benefits received by directors (Companies Act, 2008). The JSE Listings Requirements (2019) likewise stipulate that directors' payments should be disclosed, including base pay and incentives in line with King IV.

Between 1994 to 2016, four King Reports were published. In line with Principle 14 of the latest King IV Report, remuneration committees should certify that directors and other employees were compensated fairly and responsibly (Van Wyk and Wesson, 2021). King IV also encourages companies to publish a three-part remuneration report including a background statement, details on the pay policy, and an implementation report (IoDSA, 2016). In addition to offering details on the respective pay components, the implementation report should indicate how individual directors performed against targets (IoDSA, 2016).

King IV also recommends that director pay should be used to generate value in a sustainable manner (IoDSA, 2016). Likewise, the International Integrated Reporting Council (IIRC, 2021) centres on reporting on value creation over the short-, medium, and long-term in the context of the six capitals. Companies are accordingly not only requested to reflect on past and present performance, but also to account for future implications when disclosing material information, including director pay.

OVERVIEW OF PRIOR RESEARCH ON DIRECTOR PAY IN SOUTH AFRICA

Despite South Africa's well-developed corporate governance framework, limited research has been conducted on reporting on director pay during the 2000s due to insufficient disclosure of remuneration. Aspects that could contribute to resolving the agency dilemma were investigated, including governance structures designed to discourage executives from engaging in self-serving behaviour (Kakabadse *et al.*, 2004). Inadequate disclosure of director pay components was highlighted during the 2010s (Steenkamp *et al.*, 2019; Mans-Kemp and Viviers, 2018).

Performance considerations increasingly receive scholarly attention (Bussin and Ncube, 2017). Kirsten and Du Toit (2018) noted that executive pay policies of selected JSE-listed companies were affected by their share prices between 2006 and 2015. Padia and Callaghan (2021) likewise noted a positive link between executive pay and revenue between 2010 and 2017. These results concur with the agency postulation that director pay can be used to align the interests of agents and principals. Yet, Steenkamp *et al.* (2019) noted that some JSE-listed companies did not meet regulatory requirements to disclose share-based pay during the 2010s.

Van Wyk and Wesson (2021) explored the alignment of chief executive officers' LTI objectives with key performance indicators for local mining companies between 2010 and 2016. They recommended more transparent governance to address seemingly opaque pay disclosures. Smit, Nel and Smit (2022) found that large and more profitable companies had better pay disclosure during the 2010s

in comparison to their smaller and less profitable counterparts. The literature review hence indicated an evident gap in research covering director pay disclosure, especially in the context of the COVID19 pandemic.

RESEARCH DESIGN AND METHODOLOGY

This study was conducted to explore the director pay disclosure of selected JSE Top 40 companies before and during the COVID-19 pandemic. The keywords in Table 1 were used to conduct content analysis on their integrated reports.

TABLE 1:

KING IV FAIR AND RESPONSIBLE DIRECTOR COMPENSATION CONSIDERATIONS

King IV practices	Keywords and explanation
A three-part compensation report should include the following items: Background statement; remuneration policy overview (base salary, benefits, STIs, LTIs, deferrals, termination pay, sign-on and retention payments, malus and clawback provisions, NED fees) and implementation report. The pay policy should include the following: executive compensation in the context of significant employee compensation; performance measurements should support positive results across divergent capital sources	Background statement: Provide information on context and decision-making factors, results of voting on the policy and implementation report and responses
	Fee(s): Payment made to NEDs for services and meeting attendance
	Overview/summary: Overview of main policy provisions, pay principles and elements
	Remuneration/emolument/compensation/pay: Total payment received by directors
	Salary: Fixed regular payment to executives, typically paid per month but often expressed as an annual sum
	Pay/remuneration policy: Address organisation-wide pay considerations
	Fair: Ensuring that directors' compensation is set at a level that is fair and liveable, and provides equal pay for equal work
	Employee: Individual who is employed by a company
	Human capital: Remuneration policy must be structured to attract, motivate, reward and retain human capital
	Performance: Indicates how a director fulfils their duties and completes required tasks
	Base pay: The amount of income a director receives before benefits such as bonuses, and deductions
	Non-executive director/NED: A board member who is not involved in the day-to-day management of the organisation
	Executive: A director who is engaged in the company's day-to-day management; such an individual is a full-time salaried employee who is typically bound by a service contract
	Guaranteed pay: Salaries, pension contributions, medical benefits, and allowances that executives may be entitled to
	Benefit(s): Any benefits provided to directors in addition to their base salaries
	Award(s) granted: Granted to a director pursuant to applicable terms, conditions, and limitations established by the board
	Short-term incentive/STI: Used to reward a director over the short-term, for example a bonus
	Long-term incentive/LTI: Used to reward a director over the long-term, typically includes share options
	Deferral/deferred: A portion of salary/compensation that is paid at a later date
	Termination: Refers to the end of a director's employment contract
	Retention: A lump sum payment apart from base pay that is offered as an incentive to convince a key employee to remain in their position for a specific time period

Severance: Compensation paid to employees who leave the company because their position ceases to exist
Malus: The provisions for pre-vesting forfeiture of remuneration
Clawback: The provision for post-vesting forfeiture of remuneration

Source: Based on IoDSA (2016)

The Top 40 index includes the largest companies listed on the JSE based on market capitalisation. The sample included the Top 40 companies that remained listed on the JSE between 1 January 2017 and 31 December 2021. Twenty-four companies met this judgment sampling criterion. The research period was selected as King IV is effective since 2017 (IoDSA, 2016) and to allow the investigation of disclosure of director pay before (2017-2019) and during (2020-2021) the COVID19 pandemic. Keywords shown in Table 1 was based on the discussed King IV director pay guidelines (IoDSA, 2016).

An extent of disclosure score was allocated per pay consideration. If a pay consideration was merely mentioned by a sampled company in a given year, an extent of disclosure score of 1 was awarded for that consideration. Alternatively, an extent of disclosure score of 3 was allocated if some detail was provided, and an extent of disclosure score of 5 was assigned if a comprehensive discussion was provided per pay consideration. If a specific pay aspect was not disclosed by a sampled company, a score was not allocated. The data were captured in Excel.

The coding scheme developed by Melloni (2015) was furthermore used to account for tone (positive, neutral or negative). When negative language such as “unfortunate” was used to describe a specific director pay aspect, the tone of the disclosure was considered negative. Alternatively, if the pay component was described in a favourable manner e.g. the wording “improved” or “proud of” was used, the tone was deemed positive. If a sampled company did not indicate whether a pay consideration was regarded in a negative or positive light or evident positive or negative wording was not used, the disclosure thereof was scored as neutral. The tone scores allocated to all the pay considerations shown in Table 1 were then considered to determine an overall tone score per sampled company per annum. For instance, if most of the tone scores were positive in a given year, the overall tone of pay disclosure was deemed positive for that sampled company.

In terms of time orientation (Melloni, 2015), attention was given to whether forward-looking disclosures were made. If a pay disclosure included details about previous events or prior performance, it was regarded as non-forward looking. The same applies to statements in the integrated reports that covered existing procedures. Disclosure on pay considerations was deemed forward-looking if it contained at least one reference to a future event or wording such as “we aspire to”, “we will”, “we want to”, “in the future”, “in the coming years” was used.

According to Krippendorff (2018), content analysis can be used to establish “reproducible and accurate inferences from texts to the settings of their use”. The outlined coding process was consistently applied. Future scholars can use the discussed approach to conduct similar analyses. Pertaining to the reliability of the content analysis, the audited integrated reports of the sampled companies were sourced from the Bloomberg database. The keywords were based on the renowned King IV director remuneration guidelines (IoDSA, 2016). This study was exempt from ethical clearance as secondary data were analysed.

RESULTS AND DISCUSSION

The extent of disclosure scores (1, 3 and 5) that were allocated to the sampled companies per year for the indicated director pay considerations are shown in Table 2. In some instances, the indicated extent of disclosure scores does not equate to the total number of sampled companies as some companies did not disclose any details on the specific pay matter. The number of companies that made forward-looking disclosures (indicated as F) are also shown per pay consideration.

As seen in Table 2, most of the sampled companies reported moderate details on the indicated director pay considerations in 2017 and 2018. Thereafter, an upward trend is noted in the extent of disclosure on most of these aspects. It should be noted that King IV (IoDSA, 2016) only came into

effect in 2017, which could partly explain the comparatively lower disclosure scores during the beginning of the study period. Some of the sampled companies were arguably still becoming accustomed to the latest King guidelines.

Van Wyk and Wesson (2021) noted similar results for JSE-listed mining companies. Most of the considered companies in this study offered substantial details on fair and responsible director pay following the advent of the COVID-19 pandemic. According to Zattoni and Pugliese (2021), disclosure quality considerably affected the ability of shareholders to determine the impact of the recent pandemic on corporate considerations, including director pay.

Harvey, Maclean and Price (2020) highlighted the limited impact that disclosure actually has on sound governance practices, including setting fair executive pay. The disclosure of more details on director pay has not met the intended goal of increasing accountability and moderating executive pay increases in the United Kingdom. They hence argued that disclosure is a necessary but not sufficient condition for remuneration accountability. Shareholders should hence engage with companies to discuss pay concerns (Harvey *et al.*, 2020). Cassim (2022) confirmed that South African shareholder activists increasingly demand enhanced disclosure and fair executive pay.

Perusal of the disclosure of fees allocated to NEDs in Table 2 shows that the sampled companies disclosed more details on this pay component since the advent of the COVID-19 pandemic. This result can be partly ascribed to the essential monitoring role of NEDs, especially during crisis periods. However, managers tend to provide less information to directors during disruptive periods, thereby negatively impacting their advisory activities (Crocì, Hertig, Khoja and Lan, 2023). A similar trend was observed for the salaries paid to executives. Since 2020, most of the sampled companies disclosed substantial details on their pay policies.

TABLE 2:

FAIR AND RESPONSIBLE DIRECTOR PAY: EXTENT OF DISCLOSURE AND TIME-ORIENTATION

Remuneration considerations	2017		2018		2019		2020		2021	
	Extent	Time	Extent	Time	Extent	Time	Extent	Time	Extent	Time
Background statement	1: 7 3: 8 5: 3	F: 9	1: 6 3: 10 5: 2	F: 9	1: 5 3: 11 5: 4	F: 12	1: 3 3: 11 5: 8	F: 10	1: 3 3: 10 5: 8	F: 10
Fee(s)	1: 7 3: 6 5: 9	F: 10	1: 5 3: 8 5: 11	F: 10	1: 4 3: 7 5: 12	F: 11	1: 4 3: 6 5: 14	F: 12	1: 4 3: 6 5: 14	F: 13
Overview/summary	1: 11 3: 7 5: 4	F: 8	1: 9 3: 8 5: 5	F: 7	1: 7 3: 8 5: 9	F: 9	1: 6 3: 7 5: 11	F: 8	1: 6 3: 7 5: 11	F: 14
Remuneration/emolument/ compensation/pay	1: 10 3: 8 5: 6	F: 9	1: 8 3: 10 5: 6	F: 11	1: 7 3: 9 5: 8	F: 14	1: 5 3: 7 5: 12	F: 14	1: 5 3: 7 5: 12	F: 13
Salary	1: 8 3: 9 5: 7	F: 9	1: 6 3: 11 5: 7	F: 7	1: 5 3: 10 5: 9	F: 14	1: 4 3: 6 5: 14	F: 13	1: 4 3: 6 5: 14	F: 17
Policy	1: 12 3: 7 5: 5	F: 7	1: 9 3: 9 5: 6	F: 7	1: 5 3: 10 5: 9	F: 16	1: 5 3: 8 5: 11	F: 14	1: 5 3: 8 5: 11	F: 14
Fair	1: 13 3: 7 5: 3	F: 8	1: 11 3: 8 5: 4	F: 9	1: 9 3: 7 5: 8	F: 10	1: 8 3: 6 5: 10	F: 15	1: 8 3: 6 5: 10	F: 14
Performance	1: 8 3: 10 5: 6	F: 10	1: 6 3: 9 5: 7	F: 10	1: 5 3: 8 5: 8	F: 11	1: 4 3: 7 5: 13	F: 18	1: 4 3: 7 5: 13	F: 14
Base	1: 8 3: 9 5: 7	F: 12	1: 6 3: 10 5: 8	F: 13	1: 7 3: 9 5: 8	F: 13	1: 5 3: 10 5: 9	F: 12	1: 5 3: 10 5: 9	F: 13
Guaranteed pay	1: 9 3: 6 5: 3	F: 13	1: 8 3: 8 5: 3	F: 14	1: 7 3: 8 5: 4	F: 14	1: 6 3: 7 5: 5	F: 15	1: 6 3: 7 5: 5	F: 14

Benefit(s)	1: 8 3: 9 5: 5	F: 14	1: 6 3: 9 5: 7	F: 15	1: 6 3: 10 5: 7	F: 13	1: 4 3: 9 5: 6	F: 14	1: 4 3: 9 5: 6	F: 15
Award(s)	1: 7 3: 6 5: 5	F: 14	1: 6 3: 8 5: 5	F: 13	1: 5 3: 10 5: 5	F: 13	1: 4 3: 8 5: 6	F: 14	1: 4 3: 9 5: 8	F: 13
Short-term incentives/STIs	1: 8 3: 8 5: 6	F: 10	1: 5 3: 10 5: 2	F: 10	1: 5 3: 9 5: 2	F: 10	1: 4 3: 10 5: 5	F: 14	1: 4 3: 10 5: 6	F: 15
Long-term incentives/LTIs	1: 8 3: 9 5: 6	F: 11	1: 6 3: 12 5: 6	F: 12	1: 5 3: 14 5: 5	F: 13	1: 5 3: 12 5: 5	F: 14	1: 5 3: 12 5: 6	F: 14
Deferral(s)/deferred	1: 12 3: 2 5: 1	F: 6	1: 10 3: 5 5: 3	F: 7	1: 8 3: 7 5: 3	F: 7	1: 6 3: 8 5: 8	F: 10	1: 6 3: 8 5: 8	F: 8
Termination	1: 12 3: 8 5: 4	F: 8	1: 9 3: 10 5: 5	F: 9	1: 9 3: 10 5: 5	F: 12	1: 8 3: 9 5: 7	F: 15	1: 8 3: 9 5: 7	F: 9
Retention	1: 5 3: 11 5: 4	F: 7	1: 6 3: 9 5: 6	F: 6	1: 7 3: 9 5: 5	F: 9	1: 7 3: 7 5: 5	F: 7	1: 7 3: 7 5: 6	F: 6
Severance	1: 7 3: 4 5: 1	F: 5	1: 5 3: 7 5: 3	F: 8	1: 5 3: 8 5: 4	F: 10	1: 4 3: 6 5: 6	F: 5	1: 4 3: 6 5: 6	F: 14
Malus	1: 9 3: 9 5: 1	F: 10	1: 7 3: 10 5: 3	F: 12	1: 7 3: 12 5: 5	F: 12	1: 5 3: 10 5: 7	F: 13	1: 5 3: 11 5: 8	F: 15
Clawback	1: 9 3: 9 5: 1	F: 10	1: 7 3: 10 5: 3	F: 12	1: 7 3: 12 5: 5	F: 12	1: 5 3: 10 5: 7	F: 13	1: 5 3: 11 5: 8	F: 15

Source: Created by the researchers

In light of South Africa being the most unequal country in the world (The World Bank, 2023), it is encouraging to note that the majority of the considered companies disclosed extensive details (extent of disclosure score of 5 in Table 2) on fair remuneration since the advent of the COVID-19 pandemic. In contrast, most of the sampled companies merely mentioned fair emolument in 2017 and 2018.

Given the increased focus on the link between director remuneration and performance in South Africa (Padia and Callaghan, 2021; Van Wyk and Wesson, 2021; Steenkamp *et al.*, 2019; MansKemp and Viviers, 2018), the sampled companies increasingly disclosed more details on this link. By 2020, most of them disclosed extensive details in this regard. In contrast, moderate details were provided on directors' base and guaranteed pay by most of the considered companies. The same applies to the allocation of benefits and awards.

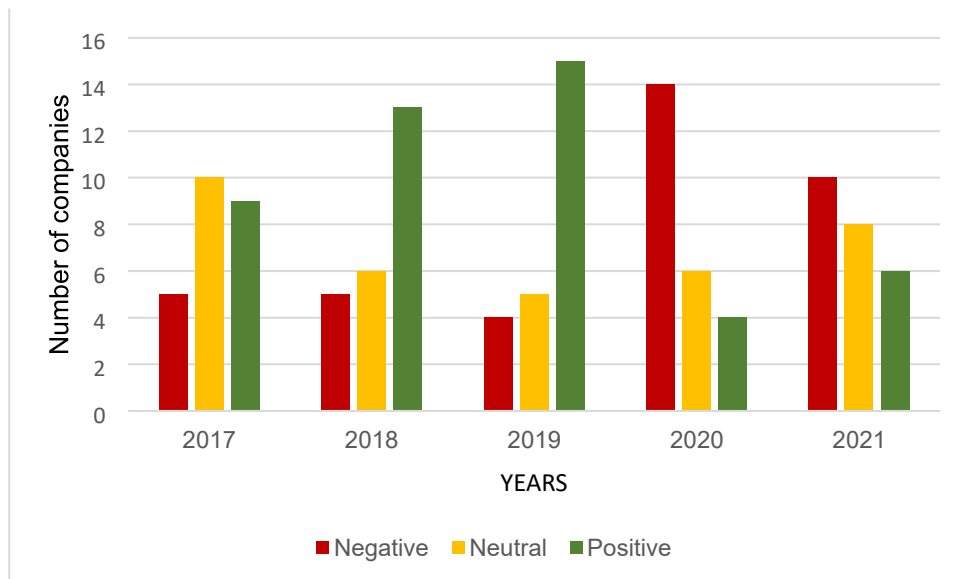
Despite the potential of incentives to partly address the discussed agency problem (Kakabadse *et al.*, 2004), most of the sampled companies only disclosed moderate details on incentives allocated to executive directors pre- and post-2020. Since the advent of the Coronavirus pandemic, several companies provided substantial details on deferrals, as seen in Table 2. Chinese companies likewise deferred bonus payments due to financial distress caused by the COVID-19 pandemic (Zhao, Gu, Rosen and Harris, 2021). Moderate details were furthermore provided on clawback and malus by most of the sampled companies over the research period. The first research objective was thus addressed based on the results reported in Table 2.

To account for future orientation in line with the IIRC's (2021) reporting guidelines and hence address the second research objective, Table 2 also indicates the number of sampled companies that made forward-looking disclosures for the indicated pay considerations. It is evident that the companies increasingly provided forward-looking disclosures since the advent of the COVID-19 pandemic. They mentioned several future plans and potential areas that could be improved pertaining to director remuneration.

Disclosures on several director emolument components, including salaries, STIs and LTIs were largely forward-looking since 2020. The sampled companies thus increasingly referred to uncertain future events. In contrast, Wan and Tian (2022) noted that forecast tendencies and the quality of corporate disclosures in China were negatively affected by the COVID-19 pandemic. Figure 1 depicts the overall tone scores (positive, negative and neutral) that were assigned for fair and responsible director remuneration per annum to address the third research objective.

FIGURE 1:

STONE OF DISCLOSURE ON FAIR AND RESPONSIBLE DIRECTOR PAY CONSIDERATIONS



Source: Created by the researchers

A shift in the tone relating to disclosure on fair and responsible director pay considerations prior to and amid the COVID-19 pandemic is noted in Figure 1. While most of the sampled companies adopted a positive tone when disclosing information on fair and responsible director remuneration in 2018 and 2019, most of them used a negative tone in 2020. Some of the sampled companies disclosed that they had to largely halt their operations due to the South African lockdown restrictions during this year. As a result, several of them reduced short-term incentives, thereby possibly contributing to the overall negative tone of pay disclosure during this crisis period. Although the number of companies that had a negative tone pertaining to director pay decreased in 2021, most of them still had a negative disclosure tone during the last year under consideration.

CONCLUSIONS, MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

Director remuneration in South Africa is guided by the King IV Report, the Companies Act, and the JSE Listings Requirements. These regulations and legislation require that substantial details should be disclosed on director pay in annual integrated reports. Despite offering well-developed corporate governance guidelines to companies, South Africa has the highest Gini coefficient globally. The overview of prior research on remuneration disclosure highlighted the need to examine pay disclosure pre- and during the COVID-19 pandemic in South Africa.

Content analysis was hence conducted on the integrated reports of selected JSE Top 40 companies to account for their extent of disclosure on fair and responsible director pay as outlined in Principle 14 of the King IV Report. The time orientation and tone of such disclosures were also considered over the period 2017 to 2021. The King IV Report is applicable since the beginning of the research period. The selected time frame allowed comparisons pre- and during the COVID-19 pandemic.

The extent of disclosure on most director pay considerations increased noticeably from 2019 onwards. It should be noted that the investigated 2017 and 2018 integrated reports reflected the first two reporting years following the release of King IV. The leaders of the sampled companies were possibly still adjusting to the King IV pay guidelines. Yet, when the COVID-19 pandemic arose, several of the sampled companies focused on future plans and pay areas that could be improved. The tone of disclosures pre- and during the COVID-19 pandemic changed notably. Prior to 2020, the overall tone of director pay disclosure was positive for most sampled companies. However, amid the

COVID-19 pandemic, the tone was largely negative. This trend can be partly ascribed to the negative implications and substantial uncertainty caused by this crisis period.

In terms of managerial implications, corporate leaders should urge boards and remuneration committee members to ensure that remuneration reports provide sufficient information in an understandable format to enable shareholders and other stakeholders to make informed decisions. More details should be provided on how performance related to the six capitals is linked to director pay by referring to financial and non-financial metrics.

Directors, managers and remuneration committees should furthermore reflect on what fair and responsible pay truly constitute in the local context. Due attention should be given to the King IV pay guidelines and deviations should be clearly explained. Given South Africa's high unemployment rate and challenging economic conditions that were exacerbated by the COVID-19 pandemic, it is likely that even more shareholders will focus on pay concerns in future. The outcomes of board assessments hence warrant more attention rather than merely linking incentives to financial corporate outcomes (Zattoni and Pugliese, 2021).

Pertaining to the limitations of this study, a limited number of large JSE-listed companies were included in the sample. Pay disclosures for a more representative sample including small, medium, and large JSE-listed companies can be analysed in future by using applicable software such as ATLAS.ti. A quantitative comparison of pay trends can also be conducted for companies operating in selected emerging markets, such as China, India and South Africa, pre- and post-2020. Healy and Palepu (2001) acknowledged that it is very challenging to measure the extent and impact of disclosure. As such, future researchers could conduct interviews with report preparers, remuneration committee members, directors and shareholders to determine how remuneration disclosure can be enhanced in future. Their views on the tone and time-orientation of disclosures could also be explored during such qualitative analysis.

Furthermore, pay disclosure linked to the six capitals, including financial, manufacturing, intellectual, human, environmental, and social and relationship capital warrant more empirical investigation. This study covered the years preceding and amid the Coronavirus pandemic. A comparative study can be conducted covering a longer time frame to determine the implications of the COVID-19 pandemic for director compensation policies and practices. Measures implemented to address growing pay inequality in South Africa also warrant further research.

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The opportunity presented by price momentum in frontier African equity markets

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ABSTRACT

This study investigated the extent to which the price momentum anomaly was present in a pooled sample of African frontier equity markets between March 2004 and February 2022. A portfolio-level analysis was used to analyse the total stock returns of quintile portfolios sorted on historical price momentum. The results provide evidence of a price momentum effect in African frontier equity markets. This effect remains robust after controlling for size, industry, and country concentrations. Furthermore, the strategy remains profitable over quarterly holding periods, but dissipates over semi-annual holding periods. Importantly, the positive monotonic relationship between price momentum and subsequent returns is robust during bear markets, but non-existent during bull market periods.

Keywords: Momentum, African frontier markets, Market anomalies, Factor investing

INTRODUCTION

The momentum effect in stock prices has become one of the most pervasive asset pricing anomalies in financial literature. The momentum premium refers to the phenomenon where shares with the highest historical returns over the medium term (3 to 12 months) are shown to continue to produce above-average investment returns in subsequent periods (Jegadeesh & Titman, 1993, 2001). Investors who follow momentum trading strategies will purchase stocks that have increased in value in the past few months and short stocks that have declined. These momentum trading strategies are profitable in different asset classes and across different geographies (Moskowitz, Ooi & Pedersen, 2012), including developed markets (Jegadeesh & Titman, 2011), emerging markets (Cakici, Fabozzi & Tan, 2013), and frontier markets (Blackburn & Cakici, 2017).

A few studies have also documented its existence in Africa, mostly South Africa (Page and Auret (2017), Marx and Botha (2017)). The international evidence on the momentum anomaly suggests that trends uncovered in developed markets can also be found in emerging markets, so it might be reasonable to assume that the international patterns might be similar in African frontier equity markets. Indeed a few studies have investigated momentum in African stock markets, including as part of a broader frontier market analysis (Blackburn and Cakici, 2017) as well as in a pooled sample of frontier nine African stock markets (Boamah, 2017).

This study builds on existing literature by focusing solely on the momentum effect and utilising a different application of the sorting variable across the sample. Furthermore, this study aims to expand the current research to African frontier equity markets by testing for a positive monotonic relationship between momentum and subsequent return in these markets. In addition, the momentum anomaly is analysed separately during bull- and bear-market phases. Robustness tests include controlling for potential market structure effects relating to size, industry, and country. The results of this study could be valuable for researchers and market practitioners interested in African frontier equity markets. Unless investors understand the nuances of the momentum anomaly within these markets, they may erroneously assume that momentum patterns are universally applicable. This assumption can lead to a misallocation of capital and poor investment performance.

The results of this study indicate that there is evidence of a momentum effect in African frontier equity markets. This effect remains robust after controlling for size, industry, and country concentrations. Furthermore, the strategy remains profitable over quarterly holding periods, but dissipates over semiannual holding periods. Importantly, the positive monotonic relationship between momentum and returns is robust during bear markets, but non-existent during bull market periods.

The rest of this paper is organised as follows. Section two reviews the background and literature on the momentum effect. Section three explains the methodology employed. Thereafter, the results are presented and discussed. Finally, the implications of the findings are discussed in the conclusion.

1. BACKGROUND AND LITERATURE REVIEW

There is a substantial body of empirical evidence that suggests that momentum does command a large and prevalent risk premium (Antonacci, 2013). As far back as the 1990s, Jegadeesh and Titman (1993) showed that in the United States (US) prior 'winner' shares produced significant abnormal positive returns in the year following formation, over the period from 1965 to 1989. However, the returns to the momentum portfolio were found to deteriorate in the two years after formation. Importantly, evidence indicated that the profitability of the momentum strategy was not due to the higher systematic risk assumed. Put differently, higher beta could not explain the excess returns generated by the momentum strategy. In addition, Fama and French (1996) presented evidence that the excess returns of the momentum strategy of Jegadeesh and Titman (1993) cannot be explained by the Fama and French (1992) three-factor model. This finding was also supported by Brennan, Chordia and Subrahmanyam (1998). Motivated by the increased empirical evidence, Carhart (1997) augmented the Fama and French (1992) three-factor model with a momentum factor.

International evidence of the momentum factor was presented by Rouwenhorst (1998) covering 12 European countries over the period 1980 to 1995. After adjusting returns for both market and size factors, high-momentum shares outperformed low-momentum shares by more than one per cent per month. Similar to Jegadeesh and Titman (1993), return prevalence in Rouwenhorst's (1998) study was shown to last on average for about one year. Later studies by Chui, Titman and Wei (2010) and Moskowitz et al. (2012) confirm the existence of the momentum anomaly across geographies and asset classes, with the noteworthy exception of Japan. In one of the most comprehensive studies on momentum to date, Geczy and Samonov (2016) extend tests on price return momentum across 215 years of international multi-asset returns from 1800 to 2014. The authors present evidence of a momentum premium within and across asset classes.

Kothari and Shanken (1992) and Grundy and Martin (2001) show that portfolios sorted on past return displayed time-varying exposures to the Fama and French (1992) three equity risk factors. Because the composition of the momentum portfolio is entirely dependent on the recent performance of shares in the investment universe, the top momentum portfolio has positive exposure to systematic risk factors that have performed well in the recent past, and the loser portfolio tilts towards styles that have underperformed. The implication is that the long-short momentum portfolio will allocate to low market beta shares if the market was falling and high beta shares if the market was rising in the portfolio formation period. Therefore, there is a systematic style tilt in the conventional definition of momentum, which results in poor performance of momentum strategies when the market rebounds quickly. In this case, the momentum portfolio would be long low-beta and short high-beta shares.

Cooper, Guitierrez and Hameed (2004) revealed that the state of the stock market was important for the profitability of momentum strategies. The study used a six-month momentum strategy over the period of 1929 to 1995 and demonstrated that it produced positive returns in bull markets and negative returns during bear markets. Similarly, Daniel and Moskowitz (2016) showed that the momentum strategy underperforms during and after bear markets, and when stock market volatility is high. During these periods, it is the prices of low-momentum stocks that command a higher premium. When the adverse market conditions change and start to rebound, low-momentum stocks experience strong gains. There is evidence of positive momentum results during negative market states (when the stock market was falling). In an international stock-level study, Griffin, Ji and Martin (2005) provide evidence of positive momentum returns in 35 out of 40 markets during bear market periods from 1975 to 1995. Correspondingly, Wouassom, Muradoğlu and Tsitsianis (2022) found that a momentum strategy is profitable on average during bear and bull market phases in equity market

indices from forty-seven developed and emerging markets, between 1969 and 2020. These results corroborate the argument of Griffin, Ji and Martin (2003), that momentum profits can be generated during up and down markets, which is contrary to the view that momentum is a reward for taking business cycle risk.

The excess returns produced by a price momentum strategy could be due to serial covariance in industry returns rather than persistence in firm-level returns (Jegadeesh & Titman, 2011). Moskowitz and Grinblatt (1999) investigated industry momentum and demonstrated that high-momentum industries outperform low-momentum industries in the six-month period after portfolio formation. In addition, much of the profitability of a conventional momentum strategy dissipated once industry momentum was controlled for. Grundy and Martin (2001) also presented evidence of industry momentum using a six-month formation and a contiguous six-month holding period. However, when one month is omitted between the formation and holding periods (to control for potential short-term reversals or biases due to bid-ask spreads), the profitability of the strategy is significantly reduced. This result contrasts with the evidence presented by Jegadeesh and Titman (1993) on individual stock momentum, where the strategy is more profitable when the ranking and holding periods are not contiguous.

Swinkels (2002) investigates industry momentum across a number of developed markets, and documents evidence in favour of an industry momentum effect in the US and European stock markets. However, similar to previous studies on stock level momentum, no industry momentum effect was found in Japan. Menzly and Ozbas (2006) focus on momentum across industries that are related along the supply chain, and present evidence of a strong cross-industry momentum effect. The authors show that this effect is distinct from previously researched stock- and industry-level momentum.

Many studies have investigated the momentum effect in the South African equity market. One of the earliest studies by Fraser and Page (2000) focussed on the interaction of value and momentum on the Johannesburg Stock Exchange (JSE) from January 1973 to October 1997. Using 12-month arithmetic average past returns as a proxy for momentum, the authors discovered that there was a significant momentum effect and that it was independent of a value effect. When using six-month momentum over the period February 1983 to March 1999, Van Rensburg (2001) observed average excess returns of 0.85 per cent per month.

However, when Van Rensburg and Robertson (2003) tested several momentum proxies over the period June 1990 to July 2000, including one-, six-, and twelve-month formation periods, none of the momentum variables considered were a significant contributor to one-month return. In a later study by Hoffman (2012), 12-month momentum was discovered to be a positive predictor of share returns listed on the JSE over the period 1985 to 2010. The results were significant across all size groups. Boamah (2015) produced evidence of a price momentum effect on the JSE, when included as the fourth factor in the Carhart four-factor model, apart from in the small-size group.

Hodnett, Hsieh and Van Rensburg (2012) conducted a study from January 1997 to December 2007 in which six different momentum measures were evaluated. The best performing momentum factor was the twelve-minus-one-month metric. One-month momentum was negatively related to holding period returns. This result was consistent with Jegadeesh and Titman (1993; 2001) and Van Rensburg (2001), where short-term momentum displays short-run reversals. Skipping one month in the estimation period produced higher momentum returns, suggesting that market microstructure effects negatively impact momentum profits on the JSE. Similar results by Page and Auret (2017) demonstrated that the best formation periods for momentum portfolios were between 6- and 9months. Muller and Ward (2013) found the optimal estimation period to be 12-months for a 3-month holding period, whereas Page, Britten and Auret (2013) establish that the optimal formation period to be 9-months for a momentum strategy.

Page and Auret (2017) present evidence that equal-weighted momentum strategies outperform value-weighted ones but acknowledge that higher trading costs could affect higher turnover strategies. Marx and Botha (2017) also demonstrated that investors can generate abnormal profits by using traditional or industry momentum strategies. However, the 52-week high strategy of George

and Hwang (2004), where stocks are selected based on whether they are trading at or near their most recent 52-week high, does not seem to work in South Africa.

Page and Auret (2019) reached a similar conclusion, where they showed that non-momentum factors associated with market, size and value, were not able to explain the momentum premium. The authors tested both value- and equal-weighted portfolio construction methodologies and realised that the momentum premium was consistently positive and significant.

Studies that include other African markets are quite sparse. Blackburn and Cakici (2017) studied returns in 21 frontier markets including many in Africa, from January 2006 to June 2016. Evidence of significantly positive returns associated with both value and momentum effects is presented. Momentum return patterns could not be explained by popular asset pricing models.

This paper is similar to Boamah (2017) in terms of following a pooled sample approach across frontier African frontier stock markets. Boamah (2017) studied three popular asset pricing models using data from nine African countries. Using the CAPM, Fama and French three-factor model, and the Carhart four-factor model, evidence is presented of size, value and momentum effects. Past winners seem to outperform past losers when considering a pooled sample across nine African frontier stock markets from January 1996 to February 2015.

The literature reviewed indicated that the existence of a price momentum premium has been empirically demonstrated in most major geographic regions. Frontier equity markets in Africa beyond South Africa, in contrast, seem relatively under-researched with only a few studies including some markets in larger international samples.

2. METHODOLOGY

2.1 DATA

Following the method employed by Boamah (2017), the data for the study were drawn from nine African frontier stock markets. These markets were selected due to data availability, liquidity, market depth, and breadth. Aggregating shares across different countries to form a pooled sample will address the inevitable small sample problem if individual countries are analysed in isolation. This is due to the small number of listed shares with reasonable liquidity on African frontier stock markets. The proposed procedure ensured that the aggregate sample was large enough to construct diversified quintile portfolios and conduct empirical tests. Bloomberg was used as the primary data source and monthly US dollar price data were collected for the period 1 March 2004 to 28 February 2022. In the calculation of total returns, adjustments were made to the price data to account for corporate actions, such as stock-splits and dividends. A winsorisation process was used to address the presence of outliers and suspicious returns that could jeopardise the validity of the statistical tests performed. The monthly returns across the entire sample were winsorised at the 0.5 per cent level by converting the top 0.5 per cent of values to the 99.5th percentile and the bottom 0.5 per cent of values to the 0.5th percentile level. The US dollar T-bill rate was used as a proxy for the risk-free rate.

The sampling procedure involved ranking all listed stocks across the nine markets based on their monthly US dollar market capitalisation. To ensure sufficient liquidity in the sample, only the largest 150 stocks by free-float market capitalisation were included on a monthly basis. This process helped address the thin trading problem that is prevalent in African frontier stock markets (see Appiah-Kusi & Menyah, 2003; Mlambo & Biekpe, 2005). Stocks that were delisted during the sample period were kept in the sample until the delisting date. Furthermore, a listed company had to have return data available for at least 12 months to be included in the sample. Only common stocks with primary listings on one of the nine exchanges were included in the sample. Exchange-traded funds, closed-end funds, American or global depository receipts, and similar investment vehicles were excluded.

Table 1 shows the characteristics of the entire sample over the research period. Egypt contributed the largest number of stocks (120), followed by Nigeria (60), whereas Ghana provided the smallest

number of stocks (11). In terms of average size of the stocks within a country, there exists a wide disparity across the sampled markets. Morocco had the largest mean market capitalisation of \$1,372 million and Ghana had the smallest mean size of \$187 million.

TABLE 1. CHARACTERISTICS OF THE AFRICAN FRONTIER STOCK MARKETS SAMPLE

	Number of Stocks	Mean (US\$ Million)
		Market Capitalisation
Egypt	120	626
Nigeria	60	849
Morocco	54	1,372
Kenya	29	624
Ivory Coast	23	363
Tunisia	21	310
Mauritius	16	445
Botswana	12	350
Ghana	11	187
Total	346	5,126

Note: The mean market capitalisation per country is the average over the sample period of the monthly market capitalisations per company. The number of stocks is the total number of firms that each market contributes to the sample over the entire sample period. The sample period is 01/03/2004 to 28/02/2022.

2.2 CONSTRUCTION OF SORTING VARIABLE AND TEST PORTFOLIOS

As discussed in the literature review section, previous studies have defined momentum in several different ways. One of the most common methods is to calculate the 12-month price momentum by taking the arithmetic average of monthly returns over the most recent 12-month period (Jegadeesh & Titman, 2001). However, a few studies have contended that momentum strategies where the formation and holding periods are not contiguous are more profitable (Hodnett et al., 2012; Jegadeesh & Titman, 2011; Van Rensburg, 2001). When there is no gap between the holding and formation periods, the profitability of the momentum strategy is diminished by the negative serial correlation in returns and by short-term return reversals. Therefore, price momentum was calculated as the arithmetic average of the monthly total return over the previous twelve months excluding the most recent month. Price momentum for share i in month t was, therefore, calculated as:

$$MMMMMMMMMMMMMMMMMMMM_{iiii} = \sum_{tt-11}^{tt-1} r_{ritt} \quad (\text{Equation 2})$$

Where:

r_{it} = total return for share i in month t .

The sorting variable was used to rank stocks in the cross-section on a monthly basis and to construct quintile portfolios based on the rank, similar to the method employed by Asness (1997). Portfolios were rebalanced monthly, and the equal-weighted portfolio returns for each quintile portfolio were then calculated and recorded. In smaller sample sizes, value-weighted portfolio construction techniques may become inappropriate because they can lead to high stock-level concentration. This problem could be particularly acute in markets that have high levels of concentration, as is the case in most frontier stock markets (Marshall, Nguyen & Visaltanachoti, 2015). Moreover, an

equalweighting scheme provides increased diversification which lessens the impact of stock-specific reversals.

No specific controls for country or sector were applied in the portfolio construction process. However, as sector or country concentration can have a substantial impact on the performance of quintile portfolios, the analysis was repeated by generating country and sector neutral portfolios. Similar to Rouwenhorst (1998) and Van der Hart, Slagter and Van Dijk (2003), country (or sector) neutral portfolios can be created by distributing the shares from a specific country (or sector) uniformly across the quintile portfolios. Size-neutral portfolios were also produced to assess the impact of the size effect. To achieve this, a breakpoint was determined using the median market capitalisation in the cross-section of the sample. After sorting the stocks into the two size groups, they were aggregated into quintile portfolios based on their price momentum. Besides monthly rebalancing periods, quarterly and semi-annual holding periods were also included in the analysis. In addition, bull and bear markets were evaluated independently by dividing the research period into subperiods based on the performance of the equally weighted benchmark.

2.3 MONOTONICITY TESTS

The Monotonic Relation (MR) assessment was designed to test the hypothesis that there is a monotonic relation between expected returns and some characteristic that, in theory, should earn a risk premium (Patton and Timmermann, 2010). The nonparametric MR test of Patton and Timmermann (2010) investigates the complete cross-sectional pattern in the expected stock returns and is, therefore, a good alternative to regression-based methods focussing on zero-investment strategies, such as those used by Fama and MacBeth (1973). The MR test uses a bootstrap technique where random samples are drawn with replacement, from the time series of quintile portfolio monthly returns. Following the recommendation by Patton and Timmermann (2010), six months is used as the length of the stationary bootstrap for monthly data, with 1,000 bootstrap samples. The number of bootstrap replications is chosen to be sufficiently large that the results do not depend on Monte Carlo errors.

The monotonicity test developed by Wolak (1987; 1989) specifies a monotonically increasing relationship under the null hypothesis versus no such relationship under the alternate. A p-value of higher than 0.95 would therefore lead to the conclusion of a statistically significant and monotonically increasing relationship. Patton and Timmerman (2010) highlight that one potential drawback of specifying the hypothesised monotonic relation under the null is that data with high volatility limits the power of the test. This makes it more difficult to reject the null hypothesis and therefore more difficult to have much confidence in a confirmation of a theory from a failure to reject the null. The MR test on the other hand specifies the monotonic relation under the alternative and therefore represents a stronger endorsement of the theory when the null hypothesis is rejected. Patton and Timmermann (2010) point out that the preference for entertaining the presence of a monotonic relationship under the null or under the alternate hypothesis will depend on the research question. The MR test would be appropriate if the researcher wants to determine whether the data supports the theory. Conversely, the Wolak specification would be more appropriate if one needs to determine whether there is significant evidence in the data against some theory.

The MR test and the Wolak test use different methods to assess the theory, thus, it is possible that the assessments will lead to different conclusions. For robustness, Patton and Timmermann (2010) suggest conducting both types of tests. If the MR test rejects the null hypothesis and the Wolak test fails to reject it, then there is strong support for the theory being tested.

3. PRESENTATION AND ANALYSIS OF RESULTS

3.1 PORTFOLIO-LEVEL ANALYSIS

Table 2 displays the mean monthly returns as well as the compounded annual returns for the quintile portfolios sorted on price momentum. The high momentum portfolio (Q5) produced the highest mean return (0.53%) and the highest compounded annual return (4.96%). Where the lowest mean monthly return (-0.15%) and compounded annual return (-4.33%) was produced by the low momentum portfolio (Q1). The compounded annual return displays a similar positive, linear relationship between

momentum and subsequent returns. This result is in line with the majority of empirical evidence for developed (Jegadeesh & Titman, 1993; Geczy & Samonov, 2016) and emerging markets (Rouwenhorst, 1998; Page & Auret, 2017).

Although there was no clear pattern for the realised volatility across quintile portfolios, it was the lowest momentum portfolio (Q1) that produced the highest standard deviation (22.61%). This result is similar to what Charteris et al. (2018) found in the South African equity market, namely, there is no clear pattern in the realised volatility across equally weighted momentum-sorted portfolios, with the lowest momentum portfolio delivering the highest volatility.

TABLE 2. SUMMARY STATISTICS OF THE MOMENTUM-SORTED QUINTILE PORTFOLIOS FOR THE BASE CASE

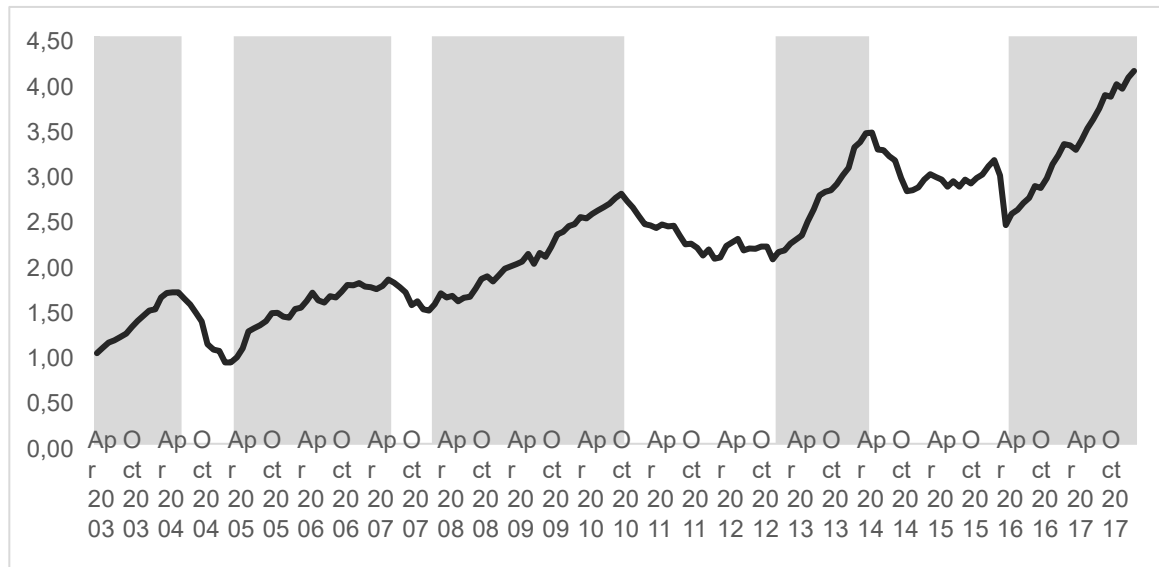
	Quintile portfolios						
	Q1 (Low)	Q2	Q3	Q4	Q5 (High)	Long- Short	EBM
Mean monthly return	- 0.15%	- 0.03%	0.13%	0.30%	0.53%*	0.68%*	0.91%***
Compounded annual return	- 4.33%	- 1.83%	0.53%	2.48%	4.96%	6.29%	10.25%
Annualised standard deviation	22.61%	16.74%	14.00%	15.24%	17.17%	20.03%	14.99%
Adjusted Sharpe Ratio	- 0.22	- 0.16	- 0.02	0.11	0.23	0.26	0.55

Note: The Long-Short portfolio displays the results of buying the high-momentum portfolio and shorting the low-momentum portfolio on a monthly basis. The EBM is an equally weighted benchmark portfolio consisting of all the shares in the sample, rebalanced monthly. The adjusted Sharpe ratio shows the Sharpe ratio modified to account for the potential distorting effects relating to skewness and kurtosis. All returns are expressed in US dollars. The mean monthly returns were tested for a statistically significant difference from zero. *** indicates the 1% level of significance.

The middle quintile delivered the lowest standard deviation (14.00%) compared to all other quintile portfolios, the long-short portfolio (20.03%) and the EBM (14.99%). There was a clear increasing pattern across quintile portfolios in terms of risk-adjusted returns as measured by the adjusted Sharpe ratio. Q1 had the lowest risk-adjusted return (-0.22) and Q5 had the highest (0.23). However, both the long-short portfolio (0.26) and the EBM (0.55) produced higher adjusted Sharpe ratios than Q5, as can be seen in Table 2.

3.2 BULL- AND BEAR-MARKET ANALYSIS

Cooper et al. (2004) found that momentum profits depend on the state of the market. Using the EBM's cumulative performance, the research period was stratified into increasing and decreasing periods with the aim of assessing bullish and bearish markets separately. To signify a bear market, the EBM must have two consecutive months of negative returns and cumulatively exceed five percentage points of negative returns. Figure 1 displays bull-market periods and bear-market periods. In total, 121 months were included in the bull-market sections, and 58 months were included in the bear-market sections.



Note: The shaded sections indicate bull-market periods and the unshaded sections bear-market periods

FIGURE 1: CUMULATIVE PERFORMANCE OF THE EBM OVER THE RESEARCH PERIOD

Table 3 displays the results of the bull market analysis. Although the mean monthly returns were similar for all the quintile portfolios, the high-momentum portfolio (Q5) produced the highest return (1.73%). The monthly mean returns were all significant; however, there was no clear pattern of increasing returns, and the mean monthly return of the long-short portfolio was not statistically significantly different from zero. This result does not fully align with the evidence in the international literature, where the momentum effect is particularly pronounced during and after bull market periods (Cooper et al., 2004; Gonzalez, Powell, Shi & Wilson, 2005; Wouassom et al., 2022).

TABLE 3. SUMMARY STATISTICS OF THE MOMENTUM-SORTED QUINTILE PORTFOLIOS FOR BULL MARKETS

	Quintile portfolios						
	Q1 (Low)	Q2	Q3	Q4	Q5 (High)	Long- Short	EBM
Mean monthly return	1.27%***	1.17%***	1.29%***	1.46%***	1.73%***	0.46%	2.11%***
Standard deviation	5.64%	3.60%	3.24%	3.84%	4.42%	5.96%	2.19%
Adjusted Sharpe Ratio	0.23	0.31	0.39	0.36	0.38	0.07	0.60

Note: The Long-Short portfolio displays the results of buying the high-momentum portfolio and shorting the low-momentum portfolio on a monthly basis. The EBM is an equally weighted benchmark portfolio consisting of all the shares in the sample, rebalanced monthly. The adjusted Sharpe ratio displays the Sharpe ratio modified to account for the potential distorting effects relating to skewness and kurtosis. All returns are expressed in US dollars. *** indicate the 1% level of significance respectively.

The results from the bear market analysis are displayed in Table 4. The mean monthly returns display a positive relationship between historical price momentum and subsequent returns. The lowest mean monthly return came from Q1 (-3.13%) and the best return was produced by Q5 (-1.98%). The results indicate that it is not the stocks with the highest past returns that have the most severe drawdowns during bear markets. The momentum anomaly appears to remain prevalent despite depressed markets. This is contrary to what was found in developed markets, where numerous studies have demonstrated that high-momentum stocks display the largest reversion during down markets (Cooper et al. 2004; Antoniou, Doukas & Subrahmanyam, 2013; Daniel and Moskowitz, 2016).

However, these results are similar to findings by Wouassom et al. (2022) where the momentum effect was found to be present in a global equity market setting during bear market phases.

There is no clear pattern in the realised volatility between quintile portfolios. However, the low momentum portfolio (Q1) did produce the highest volatility (7.22%) and it was Q3 that produced the lowest volatility. Nevertheless, after adjusting for skewness and kurtosis, the risk-adjusted return, as measured by the adjusted Sharpe ratio, exhibited no meaningful difference between Q1 and Q5. The long-short portfolio yielded a positive mean monthly return of 1.15 per cent and an adjusted Sharpe ratio of 0.2.

These observations suggest that high-momentum stocks generate superior returns to low-momentum stocks when the market rises in the bull or falls in the bear market phases.

TABLE 4. SUMMARY STATISTICS OF THE MOMENTUM-SORTED QUINTILE PORTFOLIOS FOR BEAR MARKETS

	Quintile portfolios						
	Q1 (Low)	Q2	Q3	Q4	Q5 (High)	Long-Short	EBM
Mean monthly return	- 3.13%***	- 2.53%***	- 2.29%***	- 2.10%***	- 1.98%***	1.15%*	- 1.58%**
Standard deviation	7.22%	5.98%	4.46%	4.52%	5.06%	5.36%	4.76%
Adjusted Sharpe Ratio	- 0.47	- 0.48	- 0.60	- 0.55	- 0.45	0.20	- 0.38

Note: The Long-Short portfolio displays the results of buying the high-momentum portfolio and shorting the low-momentum portfolio on a monthly basis. The EBM is an equally weighted benchmark portfolio consisting of all the shares in the sample, rebalanced monthly. The adjusted Sharpe ratio shows the Sharpe ratio modified to account for the potential distorting effects relating to skewness and kurtosis. All returns are expressed in US dollars. ***, **, * denote significance at the 1%, 5% and 10% level respectively.

3.3 ROBUSTNESS CHECKS

Several robustness checks were conducted to evaluate the degree to which certain controls would affect the results. These results are displayed in the appendix. The first control applied was for stock size, as measured by market capitalisation. Similar to the base case, Table A1 in the appendix illustrates a pattern of increasing momentum returns across quintile portfolios. However, none of the mean monthly returns were statistically significantly different from zero. The adjusted Sharpe ratio also follows a linear relationship with momentum, with the lowest momentum quintile producing the lowest risk-adjusted return (-0.22) and the highest momentum quintile delivering the best risk-adjusted return (0.20). These results imply that controlling for any possible size effect did not materially impact the outcome of the analysis.

Due to the nature of the pooled sample approach, it is possible that momentum-sorted portfolios could have high country and industry concentrations that could have influenced the results. Table A2 in the appendix displays the results of repeating the analysis on an industry-neutral basis. These portfolios were constructed by first sorting stocks into quintiles in the consumer, financial, industrials, resources, and real estate sectors, and then combining all similar quintiles across the industries. Again, the increasing pattern of mean monthly returns and adjusted Sharpe ratios remained in place across the momentum-sorted portfolios. Controlling for possible industry effects did not have a meaningful impact on results.

When repeating the analysis on a country-neutral basis, there were a few noteworthy differences in the performance characteristics of the momentum-sorted portfolios compared to the base case. The adjusted Sharpe ratio of the long-short portfolio was notably higher (0.60 versus 0.26 for the base case), and the mean monthly return of 0.71% was statistically significantly different from zero at the 1% level of significance. Although the positive linear relationship between momentum and returns is present in the country-neutral analysis, it is quintile portfolio 4 that produced the highest mean

monthly return and adjusted Sharpe ratio. These results imply that country structure effects in the sample could impact the momentum analysis and produce possible distortions. However, controlling for the possible country impacts enhanced the profitability of the momentum strategy. The results became more robust after controlling for country-level concentrations within sorting portfolios.

Tables A4 and A5 in the appendix present the summary of performance characteristics of repeating the analysis over quarterly and semi-annual holding periods. It appears that the momentum effect observed in the base case remains intact under quarterly rebalancing but dissipated as the holding period was increased to six months. The mean return of the long-short portfolio decreased from 0.66 per cent under quarterly rebalancing to -0.08 per cent under semi-annual rebalancing. The result from quarterly rebalancing aligns with Wouassom et al. (2022) who found the optimal holding period for momentum-based strategies to be 3 months. The longer-term reversal in momentum profit has been well documented in momentum literature (Jegadeesh and Titman, 1993, 2001), however, the abnormal returns only disappeared in the next two years after portfolios were created.

3.4 MONOTONICITY TESTS

The results of the monotonicity tests are displayed in Table 5. The monotonicity tests of Patton and Timmermann (2010) and Wolak (1989) allowed for statistical testing of the monotonic relationship across different momentum-sorted portfolios that were generated in the different iterations of the analysis. The MR test of Patton and Timmermann (2010) test the null hypothesis that there is no linear monotonic relation between historical price momentum and subsequent returns, whereas the Wolak (1989) test evaluates a strictly increasing monotonic relation under the null hypothesis. The mean monthly returns for both portfolio 1 (low momentum) and portfolio 5 (high momentum) are shown for each iteration of the analysis. The difference between the high momentum and low momentum portfolios were positive and significant in all cases except for semi-annual rebalancing and during bull market periods.

The monotonicity tests confirmed an increasing monotonic relation between momentum and returns for the base case, size neutral, industry neutral and during bear markets. Although the momentum strategy (P5 - P1) produced a statistically significantly positive mean monthly return for the country neutral analysis, no monotonic relation across the quintiles could be confirmed at a 5% level of significance. The monotonicity tests showed no evidence of a monotonic relationship between momentum and returns using semi-annual rebalancing periods or during bull market periods. These results suggest that there is evidence of a positive and linear monotonic relationship between momentum and returns in African frontier equity markets. This relationship remains after controlling for possible size and industry effects, however, the monotonic relation between the variables weakens when controlling for country concentration within portfolios. Moreover, there is compelling evidence for a robust monotonic relationship between momentum and returns during bear market periods.

TABLE 5. RESULTS FROM TESTS FOR MONOTONICITY IN RETURNS ACROSS MOMENTUM-SORTED PORTFOLIOS

	Mean monthly return: Portfolio 1 (Low)	Mean monthly return: Portfolio 5 (High)	High minus Low	MR-test bootstrap p-value	Wolak p-value
Base-case	-0.15%	0.53%	0.68%	0.011**	0.920*
			(0.058)*		
Size neutral	-0.16%	0.48%	0.64%	0.01***	0.98**
			(0.074)*		
Industry neutral	-0.19%	0.36%	0.55%	0.034**	0.96**
			(0.081)*		

Country neutral	-0.32%	0.40%	0.72%	0.087*	0.899
			(0.004)***		
Quarterly rebalancing	-0.18%	0.47%	0.65%	0.106	0.894
			(0.044)**		
Semi-annual rebalancing	0.16%	0.08%	-0.08%	0.534	0.442
			(0.413)		
Bull markets	1.27%	1.73%	0.46%	0.167	0.828
			(0.199)		
Bear markets	-3.13%	-1.98%	1.15%	0.004***	0.97**
			(0.056)*		

Note: The p-values for the t-tests for differences in the mean returns are shown in the parentheses. ***, **, * denote significance at the 1%, 5% and 10% level respectively.

4. CONCLUSION

The momentum anomaly has been shown to be prevalent in financial markets across countries, industries, and asset classes, in both developed and emerging markets. This study evaluated whether the momentum anomaly is present in a pooled sample of nine African frontier equity markets. The degree to which the anomaly was impacted by possible size, country, industry, and holding period effects was also analysed. Lastly, bull- and bear- market periods were separately assessed. The results indicated evidence of a momentum premium, although the mean monthly return of the long-short portfolio under the base case was only significant at the ten per cent level of statistical significance. The monotonicity tests indicated that there was compelling support for a positive monotonic relationship between momentum and returns.

The size of the mean monthly return for the long-short portfolio did not change much across the various robustness checks, however, it was only significant at the five per cent level of statistical significance on a country-neutral basis and when using quarterly rebalancing. The tests on market conditions demonstrated a clear difference between bull- and bear-market periods. During bull markets, there was no indication of a momentum effect, however, there was robust evidence of a positive relationship between momentum and subsequent returns during bear market phases. This result suggests that investors prefer high-momentum stocks over low-momentum stocks during bear markets but are indifferent between them during bull market phases. This outcome is contrary to conclusions about the anomaly by Cooper et al. (2004) who revealed that momentum strategies produced positive returns in bull markets and negative returns during bear markets. The results are more in line with Griffin et al. (2005) and Wouassom et al. (2022) where both studies found that positive momentum profits were possible during bear markets.

A potential explanation of the outperformance during bear markets is that the momentum strategy is that investors are more discerning during adverse market periods. When the market is falling, investors become more risk averse and sell their losers while holding on to their winners. This explanation has similarities to the behavioural model suggested by Hong and Stein (1999) to explain momentum returns. According to their model, overreaction, and momentum returns, are negatively correlated with the risk aversion of momentum investors. However, the lack of a momentum effect during bull market phases are harder to explain at the hand of an overreaction hypothesis.

Another possible explanation for the results observed is the limits to arbitrage and the transaction costs involved to exploit the anomaly. This study utilised equally weighted portfolios to evaluate the momentum effect. Korajczyk and Sadka (2004) suggest that frequent turnover involved in equally weighted momentum strategies cannot withstand the higher transactions costs inherent to such strategies, and thereby detract significantly from momentum profits. This implication is particularly

relevant for African frontier equity markets given the generally lower levels of liquidity and potential greater price impact of trading. This limitation of the study extends to the challenges to apply a longshort, momentum trading strategy across several African frontier equity markets. The practical realities relating to trade execution and custodial arrangements may restrict the ability to realistically execute a momentum trading strategy. A possible extension of this study could be to incorporate transaction and related implementation costs in the analysis.

Nonetheless, the results of this study could be valuable to international investors and market practitioners interested in investing in listed African equity markets. In these markets high momentum stocks tend to outperform low momentum stocks, especially during bear markets. In bull market phases, investors in frontier African equity markets should not expect to outperform by favouring high-momentum stocks.

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APPENDIX

TABLE A1. PERFORMANCE CHARACTERISTICS OF SIZE-NEUTRAL QUINTILE PORTFOLIOS SORTED ON MOMENTUM

	Quintile Portfolios						
	Q1 (Low)	Q2	Q3	Q4	Q5 (High)	Long-Short	EBM
Mean monthly return	- 0.16%	0.00%	0.10%	0.36%	0.48%	0.64%*	0.91%***
Compounded annual return	- 4.42%	- 1.44%	0.18%	3.23%	4.30%	5.64%	10.25%
Annualised standard deviation	22.74%	16.42%	14.23%	15.15%	17.20%	20.31%	14.99%
Adjusted Sharpe Ratio	- 0.22	- 0.14	- 0.04	0.16	0.20	0.23	0.55

Note: The Long-Short portfolio displays the results of buying the high-momentum portfolio and shorting the low-momentum portfolio on a monthly basis. The EBM is an equally weighted benchmark portfolio consisting of all the shares in the sample, rebalanced monthly. The adjusted Sharpe ratio shows the Sharpe ratio modified to account for the potential distorting effects relating to skewness and kurtosis. All returns are expressed in US dollars. ***, * indicates the 1% and 10% level of significance respectively.

TABLE A2. PERFORMANCE CHARACTERISTICS OF INDUSTRY-NEUTRAL QUINTILE PORTFOLIOS SORTED ON MOMENTUM

	Quintile Portfolios						
	Q1 (Low)	Q2	Q3	Q4	Q5 (High)	Long-Short	EBM
Mean monthly return	- 0.19%	0.07%	0.20%	0.34%	0.36%	0.55%*	0.91%***
Compounded annual return	- 4.48%	- 0.68%	1.32%	2.97%	2.97%	5.07%	10.25%
Annualised standard deviation	21.07%	17.34%	14.34%	15.24%	16.53%	18.22%	14.99%
Adjusted Sharpe Ratio	- 0.25	- 0.09	0.04	0.14	0.13	0.23	0.55

Note: The Long-Short portfolio displays the results of buying the high-momentum portfolio and shorting the low-momentum portfolio on a monthly basis. The EBM is an equally weighted benchmark portfolio consisting of all the shares in the sample, rebalanced monthly. The adjusted Sharpe ratio shows the Sharpe ratio modified to account for the potential distorting effects relating to skewness and kurtosis. All returns are expressed in US dollars. ***, * indicates the 1% and 10% level of significance respectively.

TABLE A3. PERFORMANCE CHARACTERISTICS OF COUNTRY-NEUTRAL QUINTILE PORTFOLIOS SORTED ON MOMENTUM

	Quintile Portfolios						
	Q1 (Low)	Q2	Q3	Q4	Q5 (High)	Long-Short	EBM
Mean monthly return	- 0.32%	0.09%	0.18%	0.45%*	0.40%	0.71%***	0.91%***
Compounded annual return	- 5.41%	- 0.26%	0.93%	4.28%	3.54%	8.12%	10.25%
Annualised standard deviation	18.40%	16.36%	15.49%	15.00%	15.86%	12.17%	14.99%
Adjusted Sharpe Ratio	- 0.34	- 0.06	0.01	0.23	0.17	0.60	0.55

Note: The Long-Short portfolio displays the results of buying the high-momentum portfolio and shorting the low-momentum portfolio on a monthly basis. The EBM is an equally weighted benchmark portfolio consisting of all the shares in the sample, rebalanced monthly. The adjusted Sharpe ratio shows the Sharpe ratio modified to account for the potential distorting effects relating to skewness and kurtosis. All returns are expressed in US dollars. ***, * indicates the 1% and 10% level of significance respectively.

TABLE A4. PERFORMANCE CHARACTERISTICS OF QUARTERLY REBALANCED QUINTILE PORTFOLIOS SORTED ON MOMENTUM

	Quintile Portfolios						
	Q1 (Low)	Q2	Q3	Q4	Q5 (High)	Long-Short	EBM
Mean monthly return	- 0.18%	0.07%	0.01%	0.36%	0.47%*	0.66%**	0.91%***
Compounded annual return	- 4.39%	- 0.66%	- 1.01%	3.15%	4.36%	6.47%	10.25%
Annualised standard deviation	21.08%	17.29%	14.45%	15.15%	16.56%	17.76%	14.99%
Adjusted Sharpe Ratio	- 0.25	- 0.09	- 0.13	0.15	0.21	0.31	0.55

Note: The Long-Short portfolio displays the results of buying the high-momentum portfolio and shorting the low-momentum portfolio on a monthly basis. The EBM is an equally weighted benchmark portfolio consisting of all the shares in the sample, rebalanced monthly. The adjusted Sharpe ratio displays the Sharpe ratio modified to account for the potential distorting effects relating to skewness and kurtosis. All returns are expressed in US dollars. ***, **, * denote significance at the 1%, 5% and 10% level respectively.

TABLE A5. PERFORMANCE CHARACTERISTICS OF SEMI-ANNUAL REBALANCED QUINTILE PORTFOLIOS SORTED ON MOMENTUM

	Quintile Portfolios						
	Q1 (Low)	Q2	Q3	Q4	Q5 (High)	Long-Short	EBM
Mean monthly return	0.16%	0.19%	-0.06%	0.30%	0.08%	-0.08%	0.91%***
Compounded annual return	- 0.34%	0.84%	-1.77%	2.40%	-0.43%	-2.49%	10.25%
Annualised standard deviation	21.29%	16.75%	14.42%	15.13%	16.49%	17.29%	14.99%
Adjusted Sharpe Ratio	- 0.05	0.00	- 0.18	0.10	- 0.07	- 0.19	0.55

Note: The Long-Short portfolio displays the results of buying the high-momentum portfolio and shorting the low-momentum portfolio on a monthly basis. The EBM is an equally weighted benchmark portfolio consisting of all the shares in the sample, rebalanced monthly. The adjusted Sharpe ratio shows the Sharpe ratio modified to account for the potential distorting effects relating to skewness and kurtosis. All returns are expressed in US dollars. *** indicates the 1% level of significance.

Measuring technology and information governance disclosure: an emerging market perspective

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ABSTRACT

Given the relevance of technology and information (T&I) governance in the context of the fourth industrial revolution (4IR), the practical application of T&I guidelines warrants more investigation. South Africa offers a well-developed corporate governance framework. The aims of this study were hence twofold: To develop an instrument based on the King IV Report to assess disclosure on T&I governance; and to use the developed instrument to conduct content analysis on the integrated reports of selected large locally listed companies at the end of the decade in which the 4IR emerged. The allocated total disclosure scores varied between 29 and 60 per cent. The results indicated extensive disclosures on T&I risk management and legislative compliance, while limited information was disclosed on T&I oversight. It is hence recommended that companies should appoint dedicated overseers, including chief information officers and information technology committees to timeously account for T&I risks and related opportunities.

Keywords: information technology; T&I governance; disclosure; King IV; 4IR

INTRODUCTION AND RATIONALE FOR CONDUCTING THE STUDY

The convergence and complementarity of rapidly emerging technologies resulted in Klaus Schwab, the founder of the World Economic Forum, coining the term fourth industrial revolution (4IR) during the mid-2010s (Lavopa and Delera, 2021). As the 4IR is associated with integrated physical, digital, and biological technologies (Schwab, 2017), and considerable reliance on information technology (IT), companies are increasingly focusing on optimising their usage of IT assets (Andreoni, Chang and Labrunie, 2021). Sound technology and information (T&I) governance is hence critical for companies globally (Information Systems Audit and Control Association (ISACA), 2018).

By the end of the previous decade, data-driven technologies already formed the core infrastructure around which societies operate. Insufficient T&I governance in knowledge-based data-driven societies hence indicate substantial risks (Araya, 2019). Based on the stakeholder theory (Freeman, 1984), it can be postulated that ineffective T&I governance can result in companies not deriving the maximum value from their IT-related investments to the detriment of several stakeholders (Sibanda and Von Solms, 2019). Research on T&I governance hence typically covers the importance of IT assets, artificial intelligence, the compilation of governance frameworks, assessing the extent to which companies comply with related disclosure requirements and addressing related risks (Collins, Dennehy, Conboy and Mikalef, 2021; De Haes, Debreceeny and Van Grembergen, 2013).

South Africa offers a well-developed corporate governance framework. The King III Report, published in 2009, and the latest King IV, released in 2016, provide substantial details on IT and T&I governance. While King III referred to IT, King IV uses the term T&I (Institute of Directors in South Africa (IoDSA), 2016). This change in terminology illustrates that despite T&I having overlapping sections, technology and information are distinct assets and should be treated as such.

Given South Africa's considerable digital divide (Faloye and Ajayi, 2021), and the substantial guidance on IT and T&I matters offered in the King III and IV Reports, local authors focused on obstacles that might hamper the effective management and use of IT assets (Marx, Moolman and Ngwenya, 2016). The digital divide refers to differences in population members with and without access to and skills to use technology (Faloye and Ajayi, 2021). In view of the 4IR, it is essential that governing bodies exercise appropriate control over T&I assets (IoDSA, 2016).

In this context, the research objectives of this study were twofold: Firstly, to develop an instrument to measure T&I governance disclosure in South Africa; and secondly, to apply the developed instrument to assess the extent to which a sample of locally listed companies reported on T&I governance during the end of the decade in which the 4IR emerged. Enhanced disclosure by companies will enable stakeholders to make more informed decisions related to T&I matters. The literature review is presented next, followed by the research methodology. The results discussion is followed by conclusions, managerial implications, and recommendations.

LITERATURE REVIEW

In line with the stakeholder-centric focus of the King IV Report (IoDSA, 2016), the stakeholder theory (Freeman, 1984) was used as the theoretical lens for this study. Companies should manage their T&I assets to benefit a range of stakeholders, including shareholders, customers and employees. An overview of applicable frameworks will be provided next, including a comparison of relevant King III and IV guidelines. Thereafter, an overview of research on IT management structures is provided.

Technology and information governance frameworks

Frameworks that are generally used to ensure T&I governance include the Control Objectives for Information and Related Technology (COBIT) and various International Organization for Standardisation (ISO) standards (Koekemoer, 2019; Sibanda and Von Solms, 2019; Steenkamp, 2011). The COBIT framework is compiled by ISACA (2018) to address the governance and management of T&I assets. De Haes *et al.* (2013) and Steenkamp (2011) indicated that COBIT provides very useful T&I guidance. Prominent ISO standards related to T&I include ISO 27001 and 27002 that provide specifications for developing and implementing information security management systems and controls. The procedures for conducting information security risk assessments are outlined in ISO 27005 (Kitsios, Chatzidimitriou and Kamariotou, 2023). The Cybercrimes Act (No. 19 of 2020) also highlights the growing importance of sound information management.

Corporate leaders should ensure that appropriate strategies are in place to effectively manage T&I risks and opportunities as outlined in the King Reports. King III mentioned that IT resources became a pervasive part of corporate strategy and hence dedicated a chapter to governing IT resources (IoDSA, 2009). King IV includes eight recommended practices on T&I governance. Principle 12 in this report states that “the governing body should govern technology and information in a way that supports the organisation setting and achieving its strategic objectives” (IoDSA, 2016:41). Table 1 offers a comparison of applicable King IV and III guidance on IT and T&I matters. The King IV guidelines were used to develop a research instrument, as explained in the methodology section.

TABLE 1:

T&I GOVERNANCE CONSIDERATIONS INCLUDED IN KING III AND IV

Topic	Applicable King IV guideline(s)	King III comparison
Governing bodies' T&I responsibilities	Principle 12(10): Setting the direction for how T&I should be approached and addressed; Principle 12(11): Approve policy that gives effect to T&I direction; Principle 12(16): Consider periodic independent assurance on the effectiveness of internal and outsourced T&I arrangements.	King IV provides a more succinct version than King III.
Business-IT alignment	Principle 12: T&I should be governed to support the company in setting and achieving strategic objectives.	King III included more detailed practices.
Delegation to management	Principle 12(12): Governing body should delegate to management the responsibility to implement and execute effective T&I management.	King III included more detailed practices.

Governing bodies' responsibilities for T&I management and oversight	Principle 12(13): Governing body should exercise ongoing oversight of T&I management to result in: Integration of people, technology, information and processes; integration of T&I risk into risk management; resilience; proactive intelligence monitoring; management of outsourced service providers; assessment of value delivered through T&I investments; responsible use and disposal of T&I assets; and compliance with relevant laws.	Both King Reports provide detailed guidelines and recommended practices concerning T&I within the organisation.
T&I risk management	Principle 12(13a): T&I risk should be integrated into organisation-wide risk management.	King III provided similar information.
Efficacy of managing T&I assets	Principle 12(14): Governing body should exercise ongoing oversight of information management and leveraging of information to sustain and enhance intellectual capital; supporting confidentiality, integrity and availability of information; protection of personal information; and monitoring of security information.	King III offered a more in-depth discussion of the efficacy of T&I management.
Responsibility of T&I risk management	King IV does not specify who should assist the board to carry out IT-related responsibilities.	King III suggested that the risk or audit committee assist the board in this regard.
Guidance for T&I management	Principle 12(15): Governing body should exercise ongoing oversight of management of technology and to achieve strategic and operational objectives; management of risk related to sourcing technology; and responding to opportunities and disruptive effects.	King III did not provide direct guidance on how to manage technological assets.
T&I governance disclosure	Principle 12(17): Disclose overview of arrangements for governing T&I; objectives, changes in policy, acquisitions, monitoring and addressing the current and future effectiveness of T&I management.	King III did not refer to specific T&I aspects that should be disclosed.

Source: Compiled by the authors based on IoDSA (2016; 2009)

OVERVIEW OF RESEARCH ON INFORMATION TECHNOLOGY MANAGEMENT AND SECURITY STRUCTURES

Companies commonly make use of a centralised data management system, which increases the risk of data loss. Technological disruptions are forcing companies to reinvent their business models (IoDSA, 2016). There is hence growing scholarly focus on IT management and security structures, including the roles and responsibilities of chief information officers (CIOs), chief information security officers (CISOs), and dedicated IT committees. Researchers increasingly recognise the importance of these IT security officials and structures (Maynard, Onibere and Ahmad, 2018; Karanja, 2017). King IV suggests that a CIO should be appointed to manage the T&I-related needs of a company in addition to having a dedicated IT committee. Such a committee can enhance confidence in managing and integrating T&I assets (IoDSA, 2016).

Companies increasingly appoint CISOs to assist their CIOs, especially following IT security breaches (Karanja, 2017). Key roles of a CISO include protection of information assets and minimising the risk of a cybersecurity attack. It is important that CISOs are good communicators to ensure that the CIO, the board of directors, and management are informed of key T&I-related risks and opportunities (Hooper and McKissack, 2016). Smeureanu and Diab (2020) also highlighted the need for clear definition of roles and responsibilities of T&I governance structures and effective communication.

With the rapid onset of the Coronavirus disease of 2019 (COVID-19), organisations have been forced to face the prospect of digital adoption to accommodate remote working solutions and prioritise digital transformation (Desai, Shah, Mehta, Monil and Tirth, 2023; Miyamoto, 2022). Miyamoto (2022) argued that the limitations of traditional T&I governance models were outlined through the increased need for digitalisation and the increased threat of cybersecurity. Ahdadou, Aaljiy and Tahrouch (2022)

further indicated that the pandemic emphasised the necessity for organisations to re-evaluate their T&I governance structures and strategies. Early adopters of digital transformation were in a better position to ensure business continuity, mitigate risks, and leverage opportunities.

Yet, Smeureanu and Diab (2020) found that top management, including chief technology officers (CTOs) were ill-prepared for the impacts of the COVID-19 pandemic and that this can be largely attributed to their lack of awareness on the efficacy of their organisations' T&I governance structures. Prior research thus emphasises the importance of having relevant T&I governance structures. Desai *et al.* (2023) furthermore highlighted the importance and necessity of continuous innovation of T&I governance structures to ensure that they remain flexible and agile to enable corporate leaders to rapidly respond to changes.

METHODOLOGY

A disclosure checklist was developed to investigate the extent of T&I reporting of selected companies listed on the Johannesburg Stock Exchange (JSE) by conducting content analysis on their integrated reports. The sample included 39 of the JSE Top 40 companies in 2019, the last year of the decade in which the 4IR emerged. One Top 40 company was excluded from the study as it was a spin-off that only listed in September 2019. Most of the sampled companies operated in the financials (35.90%), basic materials (33.33%), and consumer staples (15.38%) industries.

The developed instrument was predominantly based on the discussed King IV T&I recommended practices (see Table 1). In addition, COBIT and the ISO standards mentioned in the literature review section were also consulted. The instrument consists of seven themes (denoted as t), namely T&I direction (t₁), T&I management and oversight (t₂), T&I risk management (t₃), environmental considerations (t₄), legislative compliance (t₅), T&I integrity (t₆), and compliance with additional frameworks (t₇), as shown in Table 2.

TABLE 2:

DEVELOPED INSTRUMENT

t	Practical consideration(s)	Keywords
t ₁	Has the governing body assumed responsibility for T&I governance?	responsibility; responsible; governing body; board; govern; governance
	Has the board set the direction for T&I governance?	direction; (en)vision; determine(s); set(s)
	Are specific goal(s)/objective(s) that the governing body has set for T&I governance mentioned?	strategic; objective(s); goal(s); technology; information
	Does the report mention how technology enabled the achievement of strategic objectives?	architecture; strategic; objective(s); enable(r)
	How did information contribute to the achievement of strategic objectives?	information; architecture; objective(s); enable(r); confidential(ity); integrity
	Has the governing body approved a T&I policy/charter to give effect to its T&I governance?	approval; approve(s); policy; charter; implement(ed); employ(ed); establish(ed)
	Are change(s) in the T&I policy/charter disclosed?	change(s); policy; charter; framework
t ₂	Has the board delegated their responsibility to govern the T&I assets to management?	delegate; manage(ment); responsibility; responsible; governing body; board
	Does the report mention any internal control measure(s) put in place pertaining to T&I assets?	internal; control; measure(s); process(es)
	Has measure(s) been put in place to ensure business resilience pertaining to the T&I assets?	resilience; strength(s); weakness(es); obstacle(s); safeguard(s); disruption(s)

	Does the report mention any significant T&I acquisition(s)?	acquisition(s); purchase(d); invest(ed); investment
	Does the report mention any future plans that the governing body envisioned for the T&I assets?	future; (en)vision; asset(s); plan(ning); next; following; upcoming; year; period
	How did the company measure the value added by T&I assets?	value; assessment; delivery; added; evaluation
	Is there independent assurance of the efficacy of the company's T&I governance?	independent; assurance; assessment; efficient(cy); efficacy; effective(ness)
	Which performance measure(s) are in place for third-party IT service provider(s)?	measure(s); assess(ment); outsource; perform(ance); third-party; service provider(s)
t₃	Are T&I-related risk(s) accounted for in the risk management guidelines?	risk(s); risk management
	How are risk(s) managed relating to the use of thirdparty IT service providers?	risk(s); assessment; third-party; service provider(s); outsource(d)
	Does the report mention any monitoring that occurred to identify T&I-related threat(s)?	monitor(ing); identify(ied); threat(s)
	Does the report mention any monitoring that occurred to respond to T&I-related threat(s)?	monitor(ing); respond(s); response; threat(s)
	Does the report indicate any measure(s) implemented to identify T&I-related opportunities?	monitor(ing); identify(ied); opportunity(s)
	Are any measure(s) implemented to exploit T&I-related opportunities?	monitor(ing); exploit(ing/ed); opportunity(s);
t₄	How did the company responsibly dispose of obsolete technology asset(s)?	obsolete; dispose(d); disposal; responsible(y)
	Does the report mention how the company responsibly disposed of information assets?	obsolete; dated; information; dispose(d); disposal; responsible(y)
	Is information provided on IT sourcing decision(s)?	sourcing; source(d); decisions
	Does the report mention green IT practice(s)?	green; sustainable(y/ity); environment
t₅	Is compliance with T&I legislation mentioned?	legislation; legislative; comply(ed/iance)
t₆	Does the report mention a data security plan?	data; security; plan; policy; privacy
	Is the continual monitoring of security information mentioned?	security; secure; monitor(ing); continuous; continual
t₇	Are other T&I governance framework(s) applied?	COBIT; ISO; comply(ies/ed); compliance

Source: Compiled by the authors based on King IV (IoDSA, 2016) and the literature review

As shown in Table 2, specific keywords were identified for each practical consideration. It should be noted that the abbreviations T&I, IT as well as the wording technology and information were omitted from all keywords, as these words were by implication considered during the word searches to account for the context of disclosures. The following coding guidelines were applied to allocate disclosure and extent of disclosure scores:

- A disclosure score was assigned to each consideration shown in Table 2. A score of 0 was allocated if a company did not disclose any information on the particular consideration; alternatively, a disclosure score of 1 was allocated if the company disclosed information.

- Furthermore, an extent of disclosure score of 1 was awarded if a sampled company merely mentioned the particular consideration; 2 if moderate detail was provided; or 3 if the company provided an elaborate discussion on the particular consideration.

A total disclosure score was then determined per practical consideration based on this equation:

$$\text{practical consideration}_{i,j} = \sum_{j=1}^n d_{i,j} \times e_{i,j} \quad \text{Where:}$$

$d_{i,j}$ = the disclosure score of practical consideration j for theme i

$e_{i,j}$ = the extent of disclosure score of practical consideration j for theme i

n = the number of practical considerations per theme i

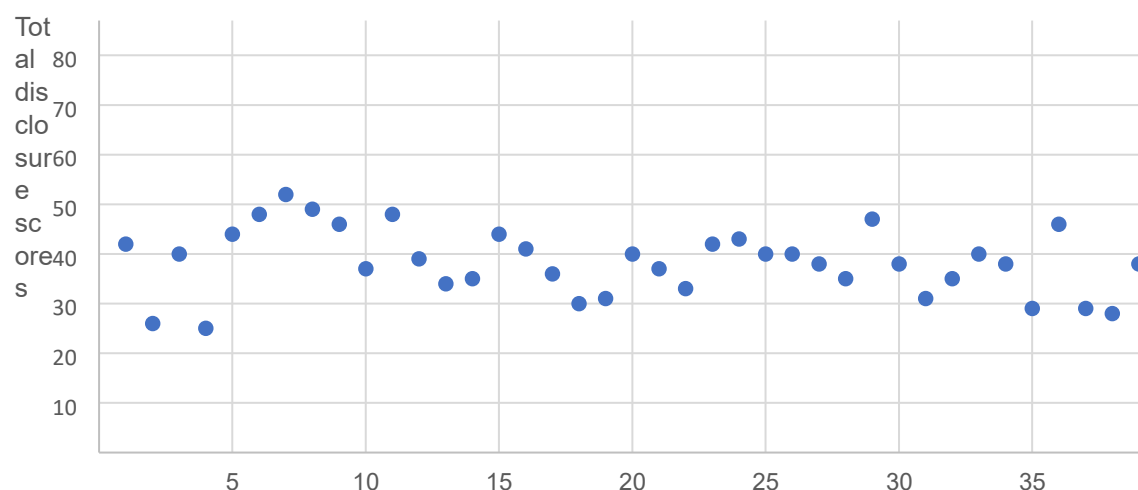
The maximum possible score of three multiplied by the 29 practical considerations in Table 2 resulted in the allocation of a maximum total disclosure score of 87. Pertaining to validity, the developed instrument was primarily based on the renowned King IV Report. Given that publicly available secondary data were analysed and no interaction with human participants was required, this research had minimal ethical risk. The first research objective was addressed in this section. The next section outlines how the second research objective was addressed.

RESULTS AND DISCUSSION

The total T&I disclosure scores of the sampled companies are shown in Figure 1. Only nine companies have met at least half of the requirements outlined in Table 2. The mean total disclosure score is 38. The companies have met between 29 per cent and 60 per cent of the disclosure considerations based on the total maximum score of 87. Several companies hence had considerable scope to improve their T&I governance when the COVID-19 pandemic emerged. This pandemic escalated T&I-related risks and opportunities (Asokan, Huq, Smith and Stevenson, 2022).

FIGURE 1:

TOTAL DISCLOSURE SCORES OF THE SAMPLED COMPANIES



Source: Constructed by the researchers based on the collected data

In line with the results reported in this study, Marx *et al.* (2016:65-66) studied the compliance of the Top 40 JSE companies with the prior King III Report's T&I governance suggestions. They reported that 47 per cent of their sampled companies fully complied with the disclosure requirements, 15 per cent only partially complied and 38 per cent did not comply with any of their stated requirements.

Some large JSE-listed companies hence seemed to have given less attention to T&I governance as time progressed between the release of King III and IV Reports. In contrast, Rama, Ally and Moosa (2023) noted that following the advent of the COVID-19 pandemic, the five biggest banks in the country had an 80 per cent compliance rate in terms of the King IV T&I guidelines.

OVERVIEW OF REPORTING ON T&I GOVERNANCE STRUCTURES

The presence of T&I governance structures (specifically a CIO, CTO and/or IT committee) was compared with the allocated total disclosure scores, as shown in Table 3.

TABLE 3:

ACCOUNTING FOR THE PRESENCE OF T&I GOVERNANCE STRUCTURES

	T&I governance structure present (Total disclosure mean score)	T&I governance structure NOT present (Total disclosure mean score)
CIO	38.07 (27 companies)	38.83
CTO	39.84 (19 companies)	36.85
CIO and CTO	40.00 (15 companies)	37.25
IT committee	44.33 (7 companies)	37.21

Source: Constructed by the researchers based on the collected data

As seen in Table 3, more than two thirds of the companies appointed a CIO. Their governing bodies have arguably realised the critical role that CIOs play. About 50 per cent of companies appointed a CTO, while 15 companies filled both positions. Eight companies filled none of these positions,

despite literature illustrating the advantages of dedicated T&I officials (Maynard *et al.* 2018; Karanja, 2017) and growing reliance on T&I assets in the context of the 4IR (Schwab, 2017).

Furthermore, less than 20 per cent of the sampled companies reported on the existence of a dedicated IT committee. The companies that did not have a dedicated committee delegated their T&I-related responsibilities to their risk and audit committees. Those companies that established an IT committee had, on average, a higher total disclosure score than their counterparts that did not report on such a committee. The same applies to companies that appointed a CIO and CTO.

DISCUSSION OF THEME SCORES

A descriptive overview of the extent of disclosure scores are provided in Table 4. The mean score for all themes except legislative compliance (t_5) and T&I integrity (t_6) were less than half of the maximum possible score per theme. While some of the sampled companies did not meet any of the disclosure requirements for selected themes, others met all the disclosure requirements for three themes, namely legislative compliance (t_5), T&I integrity (t_6), and compliance with additional frameworks (t_7). In contrast, Lengana (2018) found that local telecommunications companies gave the least attention to IT risk management and value delivery.

TABLE 4:

DESCRIPTIVE STATISTICS FOR THE EXTENT OF DISCLOSURE SCORES PER THEME

	Maximum possible score	Allocated theme scores		
		Minimum	Maximum	Mean
T&I direction (t_1)	24	4	18	11.65
T&I management and oversight (t_2)	21	4	18	9.21
T&I risk management (t_3)	18	2	15	8.98
Environmental considerations (t_4)	12	0	6	2.26
Legislative compliance (t_5)	3	0	3	1.75
T&I integrity (t_6)	6	0	6	3
Compliance with additional frameworks (t_7)	3	0	3	1.49

Source: Constructed by the researchers based on the collected data

More details on the scores allocated for the respective themes are provided in Table 5. With reference to theme 1, only five companies disclosed extensive details confirming that their governing bodies assumed responsibility for T&I governance. Some of the sampled companies might hence have experienced T&I management challenges. Given that companies can leverage their T&I assets to enable the achievement of strategic objectives, T&I assets could be deemed strategic enablers. However, only 13 and seven sampled companies disclosed extensive details on how technology and information, respectively enabled them to achieve their strategic objectives.

Pertaining to theme 2 in Table 5, it is disconcerting that several of the considered companies did not clearly delegate responsibility for T&I governance to a specific management structure. In the context of the 4IR, corporate leaders should account for fast-developing technologies and escalating cybersecurity threats. Heuer de Carvalho, Poletto and Seixas (2018) argued that outsourcing of IT activities could unlock several benefits by allowing corporate leaders to focus on core operations.

Only three of the sampled companies, however, provided considerable details on mechanisms to evaluate the performance of third-party IT service providers (t_2 in Table 5). Most of the sampled companies did not report on the usage of such third parties. Burnard, Bhamra and Tsinoopoulos

(2018) maintained that organisational resilience depends on management's ability to respond to threats and opportunities. Most of the sampled companies focused on T&I threat identification and mitigation (t₃ in Table 5). Yet, only a limited number of companies offered details on how they explored T&I-related opportunities.

TABLE 5:

DISCLOSURE PER THEME

		0	1	2	3	Mean
t ₁	Has the governing body assumed responsibility for T&I governance?	4	18	12	5	1.47
	Has the board set the direction for T&I governance?	8	18	7	6	1.29
	Are specific goal(s)/objective(s) that the governing body has set for T&I governance mentioned?	6	13	7	13	1.70
	Does the report mention how technology enabled the achievement of strategic objectives?	14	4	8	13	1.52
	How did information contribute to the achievement of strategic objectives?	11	7	14	7	1.44
	Has the governing body approved a T&I policy/charter to give effect to its T&I governance?	7	11	12	9	1.59
	Are change(s) in the T&I policy/charter disclosed?	12	10	11	6	1.29
t ₂	Has the board delegated their responsibility to govern the T&I assets to management?	8	9	17	5	1.49
	Does the report mention any internal control measure(s) put in place pertaining to T&I assets?	6	11	10	12	1.72
	Has measure(s) been put in place to ensure business resilience pertaining to the T&I assets?	11	14	8	6	1.24
	Does the report mention any significant T&I acquisition(s)?	15	5	10	9	1.34
	Does the report mention any future plans that the governing body envisioned for the T&I assets?	10	13	7	9	1.39
	How did the company measure the value added by T&I assets?	13	10	8	8	1.29
	Is there independent assurance of the efficacy of the company's T&I governance?	10	14	10	5	1.26

	Which performance measure(s) are in place for third-party IT service provider(s)?	20	6	10	3	0.9

10

		0	1	2	3	Mean
t ₃	Are T&I-related risk(s) accounted for in the risk management guidelines?	9	10	13	7	1.47
	How are risk(s) managed relating to the use of third-party IT service providers?	17	6	8	8	1.18
	Does the report mention any monitoring that occurred to identify T&I-related threat(s)?	4	8	11	16	2
	Does the report mention any monitoring that occurred to respond to T&I-related threat(s)?	12	4	11	12	1.59
	Does the report indicate any measure(s) implemented to identify T&I-related opportunities?	8	11	11	9	1.54
	Are any measure(s) implemented to exploit T&I-related opportunities?	13	11	9	6	1.21
t ₄	How did the company responsibly dispose of obsolete technology asset(s)?	39	0	0	0	N/A
	Does the report mention how the company responsibly disposed of information assets?	39	0	0	0	N/A
	Is information provided on IT sourcing decision(s)?	13	10	13	3	1.16
	Does the report mention green IT practice(s)?	18	7	6	8	1.11

t ₅	Is compliance with T&I legislation mentioned?	5	11	12	11	1.75
t ₆	Does the report mention a data security plan?	11	10	9	9	1.42
	Is the continual monitoring of security information mentioned?	11	6	10	12	1.59
t ₇	Are other T&I governance framework(s) applied?	11	8	10	10	1.49

Source: Constructed by the researchers based on the collected data

The considered companies did not account for the responsible disposal of IT assets (t₄ in Table 5). Yet, Ainin, Naqshbandi and Dezdar (2016) reported that the adoption of green IT practices has a positive influence on corporate performance. Such practices include IT sourcing, reduction of inputs, and the responsible disposal of IT assets. Green IT practices hence require more attention. It is possible that some of the sampled companies had such practices but did not report thereon.

Pertaining to themes 5 to 7 in Table 5, several companies mentioned T&I-related legislation, including the Protection of Personal Information (POPI) Act (No 4. Of 2013). Focus was placed on this act in terms of information integrity. As companies increasingly use cloud computing (Kumar, Chaisiri and Ko, 2017), data privacy and the continual monitoring of the security of information are of the utmost importance, especially in the context of the 4IR. Yet, only nine companies provided considerable details on data security plans, and only 12 elaborately discussed continuous monitoring. Four companies referred to compliance with COBIT. Steenkamp (2011) confirmed that COBIT provides useful T&I guidance for the local context. Compliance with various ISO standards that are related to T&I governance were also mentioned by some sampled companies.

CONCLUSIONS, MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

In the context of the 4IR, sound T&I governance is of the utmost importance. The researchers investigated T&I requirements in South Africa given that the country has a well-developed corporate governance framework. The T&I disclosure instrument was predominantly based on King IV and applied to assess the extent to which selected large JSE-listed companies reported on T&I governance during the end of the decade in which the 4IR emerged.

The disclosure scores of the sampled JSE Top 40 companies varied considerably (29-60% of the considered requirements were met), similar to the results reported by Marx *et al.* (2016:59) for the King III regime. Although the pervasive usage of technology could be a strategic enabler, only about a third of the considered companies extensively reported on this matter. Furthermore, less than a fifth of them disclosed details on how information enabled the achievement of strategic objectives.

The sampled companies paid more attention to mitigating T&I-related risks than identifying related opportunities. Timeous utilisation of T&I opportunities could present a competitive advantage. Pertinent attention was given to information integrity, including the presence of a data security plan and monitoring mechanisms. Noticeable attention was given to the protection of personal information in light of the POPI Act. Managers should ensure that due attention is given to the protection of sensitive and private information.

It is furthermore recommended that companies should ensure that their T&I governance endeavours are sufficiently disclosed to inform various stakeholders thereof. Reporters could consider including a dedicated T&I governance section in integrated reports. The disclosure of green IT practices is encouraged to make stakeholders aware of such efforts. Shareholders should exert more pressure on governing bodies to ensure effective T&I management and oversight. Influential investors should furthermore advocate for the appointment of dedicated T&I structures during engagements. Another managerial recommendation is that companies should offer employees opportunities to attend training on emerging technologies and cyber security to improve their understanding of T&I risks and opportunities. The King Committee is also encouraged to include more specific guidance on the roles and responsibilities of the T&I security structures in the forthcoming King V Report.

Future researchers can account for industry-specific T&I opportunities and challenges in various emerging markets post-2020. Surveys and semi-structured interviews could be used to gauge the views of governing bodies and various IT officials on T&I governance matters in the context of the COVID-19 pandemic. The reasons for non-disclosure of and/or non-compliance with specific T&I King IV recommendations also warrant attention. Artificial intelligence governance also warrants future research following the release of ChatGPT. If more organisations acknowledge their vulnerability towards cybercrime and other T&I risks, and actively explore related opportunities, their stakeholders could considerably benefit.

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The influence of financial socialisation technique, financial literacy, and subjective financial knowledge on responsible financial behaviour of young financial professionals

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Many international studies show that financial socialisation techniques, financial literacy, and subjective financial knowledge influence responsible financial behaviour. However, these studies are few in South Africa and none in Eastern Cape. Therefore this study will investigate the influence of financial socialisation techniques, financial literacy, and subjective financial knowledge on the responsible financial behaviour of young financial professionals in the Eastern Cape. This study adopted a quantitative study and used 300 closed-ended questionnaires to collect primary data from young financial professionals in the Eastern Cape. A total of 178 questionnaires were captured and subjected to data analysis, namely descriptive and inferential statistics, using Statistica version 14. The results showed that most young financial professionals had high levels of financial literacy and subjective financial knowledge. Parental financial teaching and modelling had high mean scores, while employer financial instruction was low. Financial socialisation techniques and financial literacy positively influenced responsible financial behaviour, while subjective financial knowledge negatively influenced responsible financial behaviour. This result shows employers' low financial instruction, with the lowest mean score in the study. This result means financial education provisions by employers for young financial professionals need to increase. More workshops on debt, saving and retirement planning need to be provided by employers. Also, parents should be involved in personal financial education, as financial socialisation techniques remain important in shaping responsible financial behaviour. This study provides empirical evidence on how to improve responsible financial behaviour of young financial professionals in the Eastern Cape.

Keywords: Financial socialisation; Financial behaviour; knowledge; literacy; young professional; South Africa.

INTRODUCTION

Young professionals are employed young adults who receive income and must manage their income (Kim & Chatterjee 2013:74). According to Goyal, Kumar and Hoffmann, (2023), young financial professionals have the financial resources to participate in the financial industry and those able to demonstrate financial behaviour. These individuals are usually below age 35 and have a tertiary qualification (Matchaba-hove 2016; Nkoutchou & Eiselen 2012:39). Financial professionals are respected with deep financial expertise and broad business knowledge. This is confirmed by (Goyal *et al.*, 2023) that a professional needs technical knowledge or expertise to perform a certain job. These financial professionals usually have the following professional designation Chartered Accountants (SA), Certified Financial Accountants (SA), Chartered Institute of Management Accountants (CIMA), Associate General Accountants (SA), Professional Accountants (SA) or Tax practitioners (SA)(van Wyk & Bishop, 2023:2). Therefore, young financial professionals in the study

are individuals usually below the age of 35, who have a tertiary qualification, a professional designation and employed in the financial industry.

Young professionals make many important financial decisions, such as purchasing a motor vehicle or property and contributing to retirement funds (De Bassa Scheresberg 2013:1,4). This is confirmed by van Wyk and Bishop (2023), that young financial professionals make important financial decisions such as purchasing property and motor vehicles. These financial decisions, if incorrect, might be very costly for young professionals for the future (Goyal et al., 2023; Oseifuah 2010). Therefore, young professionals must make informed decisions and demonstrate responsible financial behaviour. Responsible financial behaviours include young professionals demonstrating money management practices that produce positive financial outcomes (Asaad 2015:108). Responsible financial behaviour includes savings money regularly in a saving account, avoiding overspending and using a financial plan to manage expenses (Asaad 2015:108; Gutter & Copur 2011:705). Young financial professionals in South Africa do not always demonstrate responsible financial behaviour, for instance, van Wyk and Bishop, (2023:6) show that 31% of young financial professionals usually draw up a monthly budget, and only 62% of these respondents track their monthly expenses. Also, 62% of young financial professionals do not seek the help of professional financial advisors (van Wyk & Bishop, 2023:8) and thus rely on their subjective financial knowledge and literacy to make decisions. Also, the majority of their monthly income is dedicated toward their mortgage bond payments than savings or investments (van Wyk & Bishop 2023:7). This is confirmed by Nkoutchou and Eiselen, (2012:39) that young adults in South Africa commit a large portion of their income towards debt. Thus to ensure young financial professionals demonstrate responsible financial behaviour, it is important to investigate the factors associated with responsible financial behaviour of young financial professionals.

Financial literacy has been associated with responsible financial behaviour (Matemane, 2018:12), and young financial professionals have high levels of financial literacy (Antoni & Saayman, 2021). This is to be expected since young financial professionals have a university qualification, and individuals normally employed with a post-matric qualification tend to have high levels of financial literacy in South Africa (Nanziri & Leibbrandt, 2018). Also, Millen and Stacy (2022:132) show that young professionals with high levels of subjective financial knowledge also demonstrate responsible financial behaviour. Subjective financial knowledge is found to have a stronger influence on responsible financial behaviour (Xiao, Ahn, Serido & Shim 2014:600). This includes financial socialisation techniques such as parental financial teaching and parental financial modelling, which strongly influence responsible financial behaviour (Antoni, Rootman & Struwig, 2019; Ndou & Ngwenya, 2022).

However, few studies have investigated the influence of financial socialisation techniques on responsible behaviour in South Africa. For instance, others have focused on financial socialisation techniques' influence on behaviour among black individuals in South Africa (Ndou & Ngwenya, 2022), while others have looked at students' financial behaviour in the Eastern Cape (Antoni, et al. 2019). Studies focusing on young professionals have looked at financial literacy levels, the use of financial professionals and financial socialisation agents (Antoni & Saayman, 2021; Nomlala 2021; Matchaba-Hove, 2016). Thus, no notable study in the Eastern Cape has investigated the influence of financial socialisation techniques, financial literacy, and subjective knowledge on the responsible financial behaviour of young professionals in the Eastern Cape. Yet individuals in the Eastern Cape have the lowest levels of financial literacy (Nanziri & Leibbrandt, 2018:17), excluding young financial professionals (Antoni & Saayman, 2021). However, young professionals in the Eastern Cape have the low subjective financial knowledge and low responsible financial behaviour (Rousseau & Venter, 2019:249; Matchaba-Hove, 2016). In addition, financial socialisation techniques influenced the financial literacy levels of young financial professionals in the Eastern Cape (Antoni & Saayman, 2021). However, the influence of financial socialisation techniques, financial literacy and subjective financial knowledge on the responsible financial behaviour of young financial professionals is unknown in the Eastern Cape.

THE PURPOSE AND OBJECTIVES OF THE STUDY

The purpose is to investigate the influence of financial socialisation techniques, subjective financial knowledge, and financial literacy on the responsible financial behaviour of young financial professionals in the Eastern Cape. This was done to provide evidence on the factors that influence responsible financial behaviour and to gain insight into the financial experiences of young financial professionals in the Eastern Cape. Also, this study is a baseline for future studies and contributes to personal finance literature in South Africa. Also, the results of the study have implications for personal financial education.

Thus the objective of the study is to determine the financial socialisation techniques used by young financial professionals, their levels of subjective financial knowledge and financial literacy. And also how these factors influence the responsible financial behaviour of young financial professionals. Lastly to provide recommendations on how to stimulate responsible financial behaviour among young financial professionals. The rest of the study is organised as follows: literature review and methodology—presentation of the results and recommendations.

HYPOTHESES OF THE STUDY:

H₀: Financial socialisation techniques, subjective financial knowledge and financial literacy do not positively influence the responsible financial behaviour of young financial professionals.

H₁: Financial socialisation techniques, subjective financial knowledge and financial literacy positively influence the responsible financial behaviour of young financial professionals.

LITERATURE REVIEW

Financial socialisation and techniques

Financial socialisation refers to how individuals acquire and develop financial outcomes (Danes, 1994:128). These financial outcomes include financial knowledge, financial literacy, responsible financial behaviour, and financial well-being (Gudmunson & Danes, 2011). Parents are mainly responsible for financially socialising their children within the family (LeBaron & Kelley, 2020:3). Yet other financial socialisation agents, such as employers, influence children's socialisation and also have a role. Parents are primary socialisation agents, and peers, teachers, and employers are secondary financial socialisation agents (Antoni, & Saayman, 2021:11; Shim, Serido, Tang & Card, 2015:35; Chowa, Mathieu & Despard, 2013:383; Shim, Barber, Card, Xiao & Serido, 2010). These financial socialisation agents use different financial techniques to socialise children about financial concepts. The most important financial socialisation techniques are financial teaching, financial discussion, and modelling (Ndou & Ngwenya, 2022:129; Antoni, Rootman & Struwig, 2019; Shim *et al.*, 2015:11). This study will use parental financial teaching and modelling but also include financial instruction from the employer as young financial professionals are employed and will have access to personal financial education provided by the employer.

This study will focus on parental financial teaching and financial modelling as the main financial techniques parents use in socialising their children financially. Parental financial teaching is defined as parents sharing their financial knowledge about certain financial concepts while interacting with their children (Gudmunson & Danes 2011:649&662). Financial teaching practices used by parents may include informing children about the importance of saving, teaching them how to be smart

shoppers, and using credit cards appropriately. Parental teaching practices also include parents explaining to children how to obtain a good credit rating and ways to fund college education costs (Shim, et al. 2010).

Modelling refers to imitating the behaviour of a socialisation agent (Moschis & Churchill 1978:200). This is mostly done by children observing the behaviour of a parent (Berns 2001:73). Even before children can speak, they learn from their parents by observing the behaviour of the parents, for example, watching their parent's shop (Gudmunson & Danes 2011:662). Their parents act as role models, or social models, defined by Kołodziej, Lato and Szymańska (2014:100) as persons important to a child, including parents, teachers and peers. However, parents are the most influential financial socialisation agent in personal finance. Thus, children observe their parents' everyday financial behaviours and repeat them, which is known as parental financial modelling.

Also, employers may provide different types of financial education, such as topics related to savings, retirement, budgeting, debt management, investments, inflation and taxation (Bernheim & Garrett 2003:1491). Financial education provided in the workplace positively relates to young adults' financial behaviours. Financial education the employer provides also positively influences young adults' financial literacy. Hira and Loibl (2005:185) found that employees who receive financial education or financial information are more likely to show higher levels of financial literacy. This result is confirmed by Antoni and Saayman (2021:11) that employer-provided financial education positively influences financial literacy. The employer-provided financial education will be referred to as employer financial instruction (Antoni & Saayman 2021:11). Employer financial instruction will include workplace workshops on retirement planning, personal budgeting, debt management and savings (Saayman 2018:86).

Financial literacy and subjective knowledge

Financial literacy pertains to individuals understanding and using financial information to make informed financial decisions (Huston, 2010:11). Lusardi and Mitchell (2014:6) confirm that financial literacy refers to individuals' ability to process financial information and make informed decisions about their financial future. Financial literacy includes financial knowledge and the application (ability) of financial knowledge to make informed financial decisions. Most studies usually measure financial literacy by using objective financial knowledge (Fong, Koh, Mitchell & Rohwedder, 2021:6; Lyons & Kass-Hanna, 2021:2). Thus, financial literacy is measured using a performance-based approach of multiple choice or true or false questions to test the objective financial knowledge of the individuals (Lyons & Kass-Hanna, 2021:2). These questions have one correct answer and are summed up to derive the highest correct responses. This study will use objective financial knowledge to measure financial literacy levels and also measured subjective financial knowledge.

Subjective financial knowledge refers to beliefs about understanding personal finances concepts (Jian Xiao et al., 2014:5). Subjective financial knowledge has a stronger influence on financial behaviour than objective financial knowledge (Jian Xiao, *et al.* 2014:600). Subjective financial knowledge is measured by giving a statement and a scale of agreement and disagreement, or high or low. Some literature refers to subjective financial knowledge as confidence about financial knowledge (Robb & Woodyard 2011:67). This suggests that young financial professionals who believe they know more about personal finance concepts, namely, have higher levels of subjective financial knowledge, are more likely to perform responsible financial behaviours than those who only know more about personal finance concepts, measured as objective financial knowledge (Xiao et al. 2011:244), thus high levels of financial literacy.

Responsible financial behaviour

Financial behaviour refers to money management practices and includes behaviour relating to earning, spending, credit, saving and insurance (Xiao 2008). Financial behaviour can be positive or negative; for example, responsible (positive) and risky (negative) financial behaviour can occur (Asaad 2015:108). Responsible financial behaviours refer to money management practices with positive financial outcomes, while risky financial behaviours refer to those with negative financial outcomes (Asaad 2015:108). In contrast, risky financial behaviours may include spending too much money, overusing credit and running out of money (Garmen, Leech & Grable 1996:158). This study will focus on responsible financial behaviour, as responsible financial behaviour is associated with financial well-being. Financial socialisation techniques are expected to influence the responsible financial behaviour of young professionals.

Financial socialisation techniques have been shown to influence responsible financial behaviour in South Africa. This includes parental financial teaching, and parental discussion was found to have the strongest positive influence on responsible financial behaviour (Ndou & Ngwenya, 2022:129). Antoni, et al. (2019:82) showed that parental teaching and financial modelling strongly influence responsible financial behaviour. Many other international studies have shown that financial socialisation techniques such as parental teaching and parental financial modelling positively influence responsible financial behaviour (Goyal et al., 2023; Khalisharani, Sabri, Johan, Burhan & Yusof, 2022; Shim et al., 2015:35). Subjective financial knowledge is found to be low among young professionals in South Africa (Matchaba-Hove, 2016), but among young health professionals, subjective financial knowledge was found to be high (Millen & Stacy, 2022:132). Subjective financial knowledge has positively influenced responsible financial behaviour in South Africa (Antoni & Maswena 2023:542). More importantly, subjective financial knowledge may positively influences responsible financial behaviour among young professionals. Young professionals are found to have high levels of financial literacy (Millen & Stacy, 2022:132) and financial literacy is found to influence responsible financial behaviour (Matemane, 2018:12). Therefore, it is expected that together, financial socialisation techniques, subjective financial knowledge, financial literacy has a positive influence on the responsible financial behaviour of young financial professionals.

METHODOLOGY

The study's target population was young financial professionals below the age of 35 with a tertiary qualification and a professional designation in the financial industry. These individuals work in the in-finance industry and the following field of employment: Accounting; Auditing; Banking; Economics; Insurance; Investments, and Taxation. The young financial professional was relevant in this study as they have business or finance qualification and have thus higher levels of financial literacy than young professional in another field of employment (Khalisharani, Sabri, Johan, Burhan & Yusof, 2022:5). The sample frame is a list of all the young financial professionals employed in the Eastern Cape. This study used non-probability sampling with the snowball and convenience sampling to select the sample. Snowball sampling involves a few phases. First, a few individuals in the sample who meet the sample selection criteria are approached. These individuals then refer the researcher to other members of the sample, who could indicate other suitable prospective participants to the researcher. This process continues until the target sample has been reached (Magnani et al., 2005:69; Welman & Kruger, 2001:62). The second method used was convenience sampling, where respondents who are the most convenient or easily accessible are obtained (Collis & Hussey 2021:119). The sample is young financial professionals residing in the Eastern Cape area aged 20 to 35 with a professional designation and who have been working in the financial industry. The sample size is calculated by multiplying the scale (five-point scale) by the total number of statements or items. This sample size is the minimum responses that must be provided by the study respondents (Wiid & Diggins 2013:242). Therefore, the minimum sample size of this study is equal to the five-point scale multiplied by 22 statements, which equals 110 young financial professionals. An adjusted sample size of 110, with a possible response rate of 29% for a study for young financial professionals in South Africa is 379 (van Wyk and Bishop 2023:5). However, in this study will use self-administered

questionnaires, the response rate is expected to be higher (Millen & Stacy, 2022:127). Thus the target sample was 300 young financial professionals residing in the Eastern Cape.

Primary data was collected using a closed questionnaire in this study. The questionnaire consisted of a cover letter and three sections, A, B and C. Section A collected the respondents' demographic information, including highest qualification, field employed in, profession, and professional designation—section B collected information on the respondents' financial literacy, subjective financial knowledge and responsible financial behaviour. For financial literacy (5 statements), used three-point nominal scale for this section was 1 = true, 2 = false, and 3 = do not know. For subjective financial knowledge (4 statements) and responsible financial behaviour (4 statements), respondents were asked to rate the statements between 1 and 5, where one represented "always true" and five represented "never true". Also, section C used a five-point Likert-type scale to measure the financial socialisation techniques (parental financial teaching, financial modelling and employer's financial instruction) with nine statements. The financial socialisation techniques, namely parental teaching and financial modelling, had five statements, while the employer's financial instruction had four statements.

Ethics was also considered for this study to ensure that respondents are not harmed, respect for the respondents, and privacy and consent obtained from the study's young financial professionals. The research focused on only financial-related factors and did not request sensitive information. The respondents were provided with sufficient information about the purpose of the study and their rights to participate in the study. All primary data was kept confidential and used only for data analysis. This study also obtained ethical clearance from the Research Ethics Committee (Human) at Nelson Mandela University.

After ethical consideration and approval, primary data was collected. All collected questionnaires were scrutinised for missing data, and those that were incomplete or completed incorrectly were disregarded. The completed questionnaires were captured in Microsoft Excel and transferred to Statistica version 14. The data were subjected to extensive statistical analysis, such as descriptive and inferential statistics. Exploratory factor analysis (EFA) was performed to assess validity and reliability, and Cronbach's alpha was calculated. An EFA is a data reduction method used to identify the study's constructs or factors (Wiid & Diggins 2013:241). In this study, items/statements with a factor loading of 0.5 were considered significant (Hair, Black, Babin & Anderson 2014:115; Wiid & Diggins, 2013:242). Furthermore, Cronbach's alpha was used to assess reliability, and a value greater than 0.6 was considered acceptable (Wiid & Diggins, 2013:238).

Multiple regression analysis was conducted to test the hypotheses of the study. Multiple regression is used to analyse the influence of two or more independent variables on a single dependent variable (Collis & Hussey 2021:262;). In interpreting the results of multiple regression analysis, the researcher should interpret the beta coefficient and r squared (R^2) (Hair et al. 2014:189). The beta coefficient indicates the importance of the independent variables relative to others in the analysis (Hair *et al.* 2014:195). The r squared (R^2) indicates the percentage of variance in the dependent variable explained by the independent variables in the study (Collis & Hussey 2021:262; Hair et al. 2014:195). Also, the significant level (alpha) of 0.05 is important as it determines the interval the researcher is willing to accept error in the estimation of the multiple regression analysis (Hair et al. 2014:189). The beta coefficient, r squared (R^2), and significant level were considered when interpreting the results in multiple regression analysis. This study used multiple regression analysis to test the influence of financial socialisation techniques, subjective financial knowledge, and financial literacy on the responsible financial behaviour of young financial professionals.

RESULTS OF THE STUDY

Three hundred questionnaires were distributed to young financial professionals who were usually below 35 with a tertiary degree and a professional designation in the financial industry. Only 263 questionnaires were returned, and 178 met the study's criteria. Therefore 178 questionnaires were used for data analysis, resulting in a 59 percent response rate. It is challenging to recruit young financial professionals for a study. Thus a sample of 61 young financial professionals is also acceptable for a quantitative study, as shown in the study of van Wyk and Bishop (2023:5). These questionnaire data were captured on a Microsoft Excel spreadsheet and then analysed using Statistica version 14. Table 1 shows the demographic information of the sample of the study.

Table 1: Demographic Information

	Category	Freq.	%
Gender	Female	82	46.07
	Male	96	53.93
Ethnicity	Black	28	15.73
	Coloured	31	17.42
	White	97	54.49
	Asian	22	12.36
Age	20 – 25 years	28	15.74
	26 – 30 years	75	42.13
	31 – 35 years	75	42.13
Qualifications	Bachelor degree	47	26.40
	Honours degree	108	60.67
	Masters degree	2	1.13
	Other	21	11.80
Professional designations	Chartered Certified Accountants	2	1.12
	Chartered Management Accountants	16	8.99
	Professional Accountants	9	5.06
	Chartered Accountants	54	30.34
	Certified Financial Planner	28	15.73
	Financial Services Advisor	13	7.30
	Registered Financial Planner	36	20.22
	Professional Banker	19	10.68
	Tax Practitioners	1	0.56
Total		178	100

Source: Primary data

Table 1 shows that most of the young financial professionals in the study were males (53.93%) than females (46.07%). The young financial professionals were white (54.49%), then coloured (17.42%) and black (15.73%). Regarding the age range, young financial professionals were equally split between the ages 26 to 30 (42.13%) and the ages between 31 and 35. Most of the young professionals in the study had an honours degree (60.67%) and a bachelor's degree (26.40%). All the young financial professionals in the study had a professional designation; most were Chartered Accountants (30.34%) and Certified Financial Planners (15.73%). Figure 1 shows the financial literacy scores of the young financial professionals in the study.

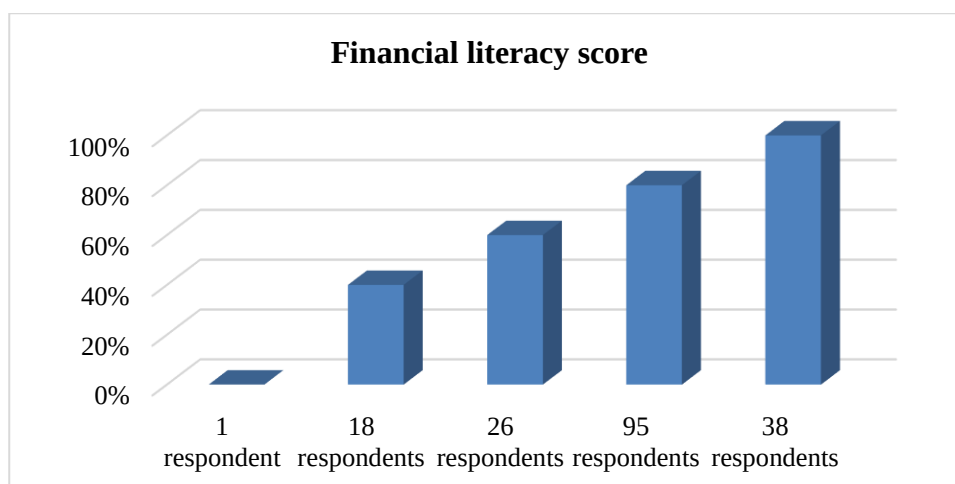


Figure 1: Financial Literacy Scores of Young Professionals

Source: Own creation.

Figure 1 shows 95 respondents scored 80%, and 38 respondents scored 100% on financial literacy. Only one respondent scored 0%, and 18 scored 40% on the financial literacy test. This means only 19 respondents could not answer the financial literacy questions, while the majority, namely 159 respondents, had high levels of financial literacy. The following section discusses the validity and reliability of the results.

Validity and reliability results

To determine the validity of financial socialisation techniques, subjective financial knowledge, and behaviour, EFA extracted items with a loading of 0.5. Any item that loaded below 0.5 was regarded as irrelevant and excluded from further analysis. Cronbach's alpha was used to test reliability, and factors with a Cronbach's alpha of 0.6 and above were considered reliable. Table 2 shows the validity and reliability results of financial socialisation techniques.

Table 2: Validity and Reliability of Financial Socialisation Techniques

Parental Financial Teaching and Modelling		Cronbach's Alpha:0.939		
Items	Statements	Factor loading	Items-total correl.	CA after deletion
While I was growing up, my parent(s):				
Parent 2	discussed with me how to save my money.	0.847	0.842	0.935
Parent 4	taught me to pay my bills on time.	0.891	0.914	0.911
Parent 5	taught me about the importance of vehicle insurance.	0.813	0.861	0.922
While I was growing up, I observed:				
Parent 2.1	how my parent(s) made budgeting decisions.	0.925	0.786	0.939
Parent 2.3	how my parent(s) paid their bills on time.	0.870	0.922	0.912
Employer Financial Instruction		Cronbach's Alpha: 0.979		
Items	Statements	Factor loading	Items-total correl.	CA after deletion
My employer offers workshops on:				
Employer 1	retirement planning.	0.945	0.963	0.968
Employer 2	personal budgeting.	0.949	0.955	0.970

Employer 3	debt management.	0.933	0.9135	0.981
Employer 4	savings.	0.968	0.956	0.967

Source: Primary data

Table 2 shows five items loaded together, Parent 2.1 had the highest loading (0.925), and Parent 5 had the lowest loading (0.813). Of the five items, three (Parent 2, 4 and 5) were expected to load parental financial teaching, and two (Parent 2.1 and Parent 2.3) were expected to model financial behaviour but loaded together. Based on these results, the factor was named parental financial teaching and modelling, similar to the study of Antoni and Saayman, (2021:10). Parental Financial Teaching and Modelling had an alpha of 0.939; thus, the study's valid and reliable factor.

Table 2 also shows four items loaded together; Employer 4 had the highest loading (0.968), and Employer 3 had the lowest loading (0.933). Based on the results, the factor was named Employer financial instruction, similar to the study of Antoni and Saayman, (2021:10). Employer Financial Instruction had a Cronbach's alpha of 0.979 and was considered valid and reliable for this study. Table 3 shows the validity and reliability results of financial knowledge and behaviour.

Table 3: Validity and Reliability of Subjective Financial Knowledge and Behaviour

Subjective Financial Knowledge		Cronbach's Alpha: 0.584		
Items	Statements	Factor loading	Items-total correl.	CA after deletion
SFK 1	I know the cost of purchasing goods using a credit card.	0.946	0.797	0.170
SFK 3	I know how to set up a monthly budget.	0.639	0.337	0.675
SFK 4	I know how to apply for a home loan.	0.838	0.666	0.566
Responsible Financial Behaviour		Cronbach's Alpha: 0.868		
Items	Statements	Factor loading	Items-total correl.	CA after deletion
FB 10	I am saving money for the future.	0.810	0.731	0.836
FB 11	I follow a monthly budget.	0.831	0.778	0.809
FB 12	I compare prices when I shop.	0.850	0.761	0.816
FB 13	I keep record of all my expenses.	0.694	0.649	0.866

Source: Primary data

Table 3 shows that three items were loaded together; SFK1 had the highest loading (0.946), while Finkn 3 had the lowest loading (0.639). Also, the Cronbach alpha showed that if SFK 3 is deleted, the Cronbach alpha of the factor will increase to 0.675. Therefore, SFK3 was deleted from the factor. Therefore, the factor had two items (SFK1 and SFK3) and was named subjective financial knowledge. Based on these results, Subjective Financial Knowledge is valid and reliable.

Table 3 also shows that four items were loaded together; FB 10 had the highest loading (0.850) and lowest loading (0.694). Based on these results, the factor was named Responsible Financial Behaviour. Responsible Financial Behaviour had a loading of Cronbach's Alpha of 0.868 and is considered valid and reliable.

Correlation and multiple regression analysis

This study used Pearson's product-moment correlations to test the correlations between financial socialisation techniques, financial literacy, subjective financial knowledge and responsible financial

behaviour. Table 4 shows the correlation results for financial socialisation techniques, subjective financial knowledge, financial literacy and responsible financial behaviour.

Table 4: Correlation Results

Factors	Means	Std.Dev	Employer	PFTB	FB	SFK	Fin Literacy
Employer Financial Instruction	3.010	1.537	1.000	0.435*	0.430*	0.061	0.200*
Parental Financial Teaching and Modelling	3.972	1.170	0.435*	1.000	0.484*	-0.070	-0.210*
Financial behaviour (FB)	4.087	1.033	0.430*	0.484*	1.000	-0.153*	0.030
Subjective financial knowledge (SFK)	4.663	0.718	0.061	-0.070	-0.153*	1.000	0.733*
Financial literacy (Fin Literacy)	3.843	0.913	0.200*	-0.210*	0.030	0.733*	1.000
*Statistically significant = $P < 0.05$							

Source: Primary data

Table 4 shows that parental financial teaching and modelling (0.484) and employer financial instruction (0.435) positively and significantly correlated with responsible financial behaviour. Also, subjective financial knowledge (-0.153) correlates negatively and significantly with responsible financial behaviour. Parental financial teaching and modelling (0.435) had a strong positive and significant correlation with employer financial instruction. Financial literacy has the strongest positive and significant correlation with subjective financial knowledge (0.733), while financial literacy has the lowest positive and significant correlation with employer financial instruction (0.200). Lastly, financial literacy had the lowest negative and significant correlation with parental financial teaching and modelling (-0.210). Table 5 shows the multiple regression results (MRA) for financial socialisation techniques, subjective financial knowledge, financial literacy and financial behaviour.

Table 5: MRA Results

Factors	Dependent variable: Responsible Financial Behaviour					
	Standardised beta	Standardised Error	Unstandardised beta	Standardised Error	T-value	P-value
Financial Literacy	0.408	0.098	0.461	0.111	4.148	0.000*
Subjective Financial Knowledge	-0.429	0.091	-0.617	0.131	-4.700	0.000*
Parental Financial Teaching and Modeling	0.465	0.073	0.410	0.064	6.396	0.000*
Employer Financial instruction	0.171	0.073	0.115	0.049	2.363	0.019*
*Statistically significant = $P < 0.05$; $R^2 = 37.61\%$						

Table 5 shows that financial literacy ($b^* 0.408$; $p = 0.000$), parental financial teaching and modelling ($b^* 0.465$; $p = 0.000$) and employer financial instruction ($b^* 0.171$; $p = 0.000$) have a positive and significant influence on the responsible financial behaviour of a young financial professional. This result means that when the levels of financial literacy are high and young financial professionals agree with receiving parental financial teaching and modelling and employer financial instruction,

then young financial professionals are likely to demonstrate responsible financial behaviour. However, subjective financial knowledge (-0.429) had a negative and significant influence on the responsible financial behaviour of young financial professionals. This result means young professionals with high subjective financial knowledge are less likely to demonstrate responsible financial behaviour. Table 6 shows the summary of the hypotheses and outcomes of the study.

Table 6: Outcomes of The Research Hypotheses

Hypotheses	Description	Results
H ₀	Financial socialisation techniques, subjective financial knowledge and financial literacy, do not positively influence the responsible financial behaviour of young financial professionals.	Reject
H ₁	Financial socialisation techniques, subjective financial knowledge and financial literacy, positively influence the responsible financial behaviour of young financial professionals.	Accepted

Source: Primary data

Table 6 shows that the study's null hypothesis was rejected, and the alternative hypothesis was accepted. This outcome means that financial socialisation techniques, subjective financial knowledge, and financial literacy influence the responsible financial behaviour of young professionals. However subjective financial knowledge had a negative influences on responsible financial behaviour and thus H₁ is only partially accepted.

DISCUSSION, RECOMMENDATIONS AND IMPLICATIONS

The study's result shows that most young professionals have high levels of financial literacy. This result is supported by many authors (Antoni & Saayman, 2021:9; Millen & Stacy, 2022:132) that young financial professionals have higher levels of financial literacy than the public in South Africa. Higher levels of financial literacy are expected from young financial professionals because they have obtained a business or finance qualification (Khalisharani *et al.* 2022:5). This is supported that those who have a business or finance-related qualification have higher levels of financial literacy than those from a different field of study.

Also, the young professional financial professional has high levels of subjective financial knowledge. This result was supported by Millen and Stacy (2022:133), who report that young professionals have high levels of subjective financial knowledge. Still, this result is opposed by Matchaba-Hove, (2016:166), who found that young professionals have low levels of subjective financial knowledge, but financial literacy has a positive and significant correlation with subjective financial knowledge. This result is like Jian Xiao *et al.* (2014:596) that subjective financial knowledge and financial literacy have a positive and significant correlation. Thus, it makes sense that high levels of subjective financial knowledge led to high levels of financial literacy among young professionals.

Also, financial literacy was found to have a positive and significant influence on the responsible financial behaviour of young financial professionals. Many studies support that financial literacy positively influences responsible financial behaviour (Matemane, 2018:12; Khawar & Sarwar, 2021:8; Millen and Stacy, 2022:132). In contrast, subjective financial knowledge was found to have a negative relationship with responsible financial behaviour; this is in contrast to the study by Antoni

and Maswena (2023:542), where subjective financial knowledge is found to have a positive relationship with responsible financial behaviour. This result might be because knowledge about credit card and home loan costs might not lead to responsible behaviour about savings, tracking expenses and comparing prices.

Financial socialisation techniques were found to positively and significantly influence responsible financial behaviour. This is specifically for parental teaching and modelling; this result is similar to Ndou and Ngwenya (2022), who found that parental financial teaching has a positive relationship with responsible financial behaviour, but modelling of financial behaviour was found not to have responsible financial behaviour. However, many studies have found that modelling financial behaviour positively influences responsible financial behaviour (Antoni et al., 2019; Shim et al., 2015; Shim et al., 2010). Therefore, high parental teaching and modelling levels should lead to higher levels of responsible financial behaviour. Also, employer financial instruction was found to influence the responsible financial behaviour of young financial professionals, but parental financial teaching was found to have a stronger influence on responsible financial behaviour. Many studies confirm that parental financial socialisation has a stronger influence on financial outcomes such as responsible financial behaviour than any other secondary financial socialisation agent (Shim et al., 2015:34; Chowa, Mathieu & Despard, 2013:383).

This study and many other South African studies (Ndou & Ngwenya, 2022; Nomlala 2021; Antoni et al., 2019) have confirmed the important influence of parental financial socialisation on individuals' financial outcomes, such as responsible financial behaviour. Also, this study and many in South Africa have confirmed the important influence of financial literacy on responsible financial behaviour (Matemane, 2018:12; Millen & Stacy, 2022:132). Therefore, personal financial education should focus on financial socialisation and financial literacy to improve young financial professionals' responsible financial behaviour. One way to provide personal financial education is through the employer; for example, currently, young financial professionals receive less financial education from the employer. Therefore personal financial education provided by the employer needs to increase so that the employer's financial instruction has a stronger influence on responsible financial behaviour. Personal financial education needs to be open to the family of young financial professionals so that their parents are also involved in the personal financial education process. Goyal et al., (2023) supports the importance of including parents in the personal financial education programme as a way to promote parent-young professional communication and also for parents to share they experience with financial practices with young professional professionals. Therefore, parental involvement in personal financial education should increase the effectiveness of the personal financial education programme (Goyal *et al.*, 2023). Also personal financial education programme should not rely on subjective financial knowledge but financial literacy which is objective financial knowledge as subjective financial knowledge might have a negative influence of responsible financial behaviour.

However, these results are limited to young financial professionals in the Eastern Cape; thus, this study needs to be replicated in other provinces in South Africa. Also, a larger sample is needed; this study only used a sample of 178, which is insufficient for generalising the data. Also, a probability sample including more factors, such as the influence of peers on financial professionals, is necessary. Notwithstanding the study's limitations, this study has shown the importance of financial socialisation techniques and financial literacy on the responsible financial behaviour of young financial professionals. Therefore future research must consider financial socialisation as a framework when investigating responsible financial behaviour; also include financial literacy as a predictor for responsible financial behaviour. This study contributes to the literature by confirming young financial professionals' financial literacy and subjective financial knowledge in the Eastern Cape, South Africa and also showing the relevance of financial socialisation in South Africa, providing useful financial techniques in South Africa. This study also shows that secondary socialisation agents should be considered for young financial professionals such as employers.

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Financial planning clients and their preparedness for risk events: Evidence from Cape Town

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ABSTRACT

The purpose of this study was to identify the type of individual who consults with a Cape Town financial planning practice, and how prepared these individuals are for a variety of financial events when they approach a financial planner. The study employed a descriptive analysis of data collected from the financial plans prepared for a sample of 495 individuals from a medium-sized financial planning practice. The study is exploratory. The results show that the clients were largely male, married, middle-aged, and higher-income earners. Most were uninsured for risks relating to their health, death, disability, and severe illness, and most did not have a will. Service providers need to market severe illness cover, as it was the least popular form of cover. They should consider targeting single males as recipients for death and severe illness cover in conjunction with the writing of a will, as they were the least likely to have either product.

Keywords: Financial planning, risk cover, financial events, health, death, disability, valid will

INTRODUCTION

A financial plan, developed by a qualified certified financial planner (CFP®), can be beneficial to people at varying stages of life, as well as to those of various financial standings (Klosterman, 2014). A financial plan can help with retirement planning but also assists the individual to prepare for events such as death or disability. A financial plan considers both health and risk cover and prompts the writing of a will if one does not exist. Thus, a financial plan provides a holistic view of all aspects towards achieving an individuals' financial goals (Jakotowicz, 2018).

Financial illiteracy is widespread and is present even in well-developed financial markets (Lusardi, 2019). Even relatively educated individuals often lack financial literacy (Jacobsen and Correia, 2019). Financial literacy is necessary for individuals to make good decisions surrounding their financial plans. However, few individuals possess the financial knowledge necessary to develop and execute a financial plan (Lusardi and Mitchell, 2013). That means that these individuals would have to gain the knowledge themselves or rely on someone else to develop a personal financial plan.

Educational initiatives in this respect have yielded disappointing results and do little to improve financial behaviour. Thus, improving financial literacy to facilitate better planning might not be the most effective approach. Financial advice could improve individuals' decision-making without the use of educational initiatives (Stolper and Walter, 2017) and less financially literate individuals are more inclined to fully delegate their self-directed investments to a financial manager (Stolper, 2018). Consequently, the use of a financial planner would be a better aid to these individuals. Literature shows that individuals struggle to afford the necessary medical care and are unprepared for risk events such as death, disability and severe illness. However, clients of financial planners tend to be more prepared. According to international research, these individuals tend to be older, male, married and wealthier (Ng, Tay, Tan and Lim, 2011; Olsen & Whitman, 2007). However, individuals' preparedness for risk events and the demographics of those who see financial planners in South Africa might differ.

This study will emphasise the significance of the financial plan and the financial planner. It will also explore the client, as well as the different areas within a financial plan. Prominence will be placed on retirement planning, risk covers (death, disability and severe illnesses), health cover and leaving a legacy.

RESEARCH OBJECTIVES

The objective of this study was to identify the type of individual who consults with a financial planning practice in Cape Town, South Africa, and how prepared these individuals are for a variety of financial events when they approach a financial planner. This information was achieved through a descriptive analysis of data collected from the financial plans prepared for a sample of 495 individuals from a medium-sized financial planning practice in Cape Town, South Africa. The study is exploratory. In order for service providers such as financial planning practices to effectively manage and market their products and services. It is vital that information regarding the type of individual and their level of financial cover for various financial events are known, so that marketing strategies can be directed effectively.

LITERATURE REVIEW

THE FINANCIAL PLAN AND THE FINANCIAL PLANNER

A broad definition of a financial plan is that it is “a statement of what must be done in the future”(Pérez, Karla, Hidalgo and Cortés, 2020:10). A financial plan is a blueprint that sets out financial needs and considers realistic ways to achieve those goals (Varcoe, Peterson, Soule, Costello, Wooten Swanson and Robinson, 2020). As a result, when considering a financial plan at a personal level, a financial plan acts as a guide to help individuals control income, expenses and investments to manage their money and achieve personal financial goals (Srinivasan, Nirmala and Venkatesan, 2020).

Mandell (2009), found that more than two-thirds of personal financial difficulty was attributable to a person’s own actions, namely too much credit or having no financial plan. This highlights why the development of a financial plan is beneficial as it involves clarifying goals, which may make financial decisions in the future easier. In addition, it will likely prepare individuals for unexpected financial difficulties that they may face, such as job loss (Klosterman, 2014). In South Africa specifically, only 13% of those working in metropolitan areas have a relationship with a financial planner (Old Mutual, 2017).

A financial planner is a professionally qualified individual who possesses the necessary skills and expertise to advise individuals and businesses on all aspects of their financial objectives (Rajbansi, 2006). A financial planner’s role is to facilitate the achievement of an individual’s life goals through the collection and analysis of information pertaining to planning their finances (Rathnasamy, 2018). This entails developing a financial plan that provides a path for clients to achieve their goals, along with periodic monitoring of their progress.

THE CLIENT

Research suggests that older married couples with higher incomes and more investment experience were more likely to plan for their retirement in the future. This was because they better understood the importance of preparing for retirement due to prior experience with investing and its effect on their quality of life (Ng et al., 2011). Similarly, Hung and Yoong (2012) found a positive relationship between being married and seeking out financial advice. However, Marsden, Zick and Mayer (2011) noted that younger individuals are less inclined to consult with financial planners as they are more likely to discount the benefit received from the advice. This finding is consistent with Hogarth (1991), Ng et al. (2011) and Olsen and Whitman (2007) who stated that older individuals are more likely to use a financial planner given their shorter timeline to retirement.

Furthermore, a higher level of education results in individuals being more likely to seek out financial advice (Collins, 2012); it is also positively related to saving for the future (Hogarth, 1991). In South Africa, Orthofer (2016) noted that 1% of the population owns at least half of all the wealth in the country. This explains why South Africa has one of the highest Gini-coefficients in the world (Inchauste, Lustig, Maboshe, Purfield and Woolard, 2015). This wealth inequality is extremely prevalent when considered by race. Mbewe and Woolard (2016) found that a typical Black household in South Africa has less than 5% of the wealth held by a typical White household.

Gender is another factor that affects the use of a financial planner. Males are significantly more likely to use financial advisors than females (Olsen and Whitman, 2007). Different roles are taken on by individuals because of gender ideologies (Willows and October, 2021) causing men to be conditioned by the expectations of society to take a more dominant role in financial planning (Griffin et al., 2012). In many situations, females' retirement decisions are strongly linked to those of their spouses (Moen, Sweet and Swisher, 2005) and their financial position then tends to be supported by their partners' earnings (Bloome, Burk and McCall, 2019).

AREAS OF A FINANCIAL PLAN

For a financial plan to be successful, the different aspects need to work together to allow clients to achieve their goals (Jakotowicz, 2018). Primarily, there are four areas of focus: 1) retirement savings and wealth, 2) risk cover, 3) health cover and 4) legacy planning. Each of these areas has an important role to play in a client's financial plan.

Retirement savings

Preparing for retirement involves establishing a timeline to retirement, the expected duration of retirement and the disposable income a person wishes to have during that period, within realistic bounds. These preparations are important as many countries are experiencing an aging workforce as workers cannot afford to retire due to the longevity risk and increases in life expectancy (Cocco and Gomes, 2012). South Africans are not immune from these considerations as the length of retirement for retirees has increased (Rathnasamy and Deodutt, 2020). Choi, Laibson, Madrian and Metrick (2002) found that more than 67% of employees reported that their current saving rate was too low when compared to their ideal saving rate, indicating that employees were not saving as much as they wanted to for retirement. Individuals' expectations that they will work after normal retirement age are unrealistic, especially for those with low levels of education (Hanna, Zhang and Kim, 2017), indicating that adequate planning before normal retirement age is important.

Risk cover

Risk cover refers to any mechanism a client may have in place to earn income or preserve assets upon death, disability or severe illnesses. Generally, the relevance of these types of risk cover are dependent on the client's profession, age and proclivity to any genetic illnesses. Opiela (2004) suggests that income protection should be the foundation of any financial plan. Disability insurance protects an individual's largest asset, i.e. their own ability to earn an income.

For the average working household in South Africa, Planting (2014) found that death or disability involving an income earner would force the household to cut expenses by 33% or 37%, respectively. The alternative was that the remaining income earners would have to increase their income by 44% or 59%, respectively. The literature indicates that most individuals are grossly unprepared to sustain income and preserve assets in times of serious life events such as death or disability, whether permanent or temporary (Mahoanyane, 2015; Planting, 2014).

Health cover

A good financial plan will likely entail detail regarding health cover. Medical expenditure can increase unexpectedly, especially if a person is susceptible to conditions that require expensive care (Sass, 2018), such as long-term care expenses.

In a South African context, Luiz and Wessels (2004) mention that the number of people covered by medical aids as a percentage of the population is declining. This increase in the uncovered portion of the population is suggested to be because of an increase in medical aid premiums (in excess of inflation). Farham (2020) noted that medical aid premiums are increasingly unaffordable and that the costs rise by considerably more than inflation year-on-year. Nonetheless, the increasing cost of medical aid cover supports the idea that those who have comprehensive financial plans are likely to be higher-income individuals as put forward by Ng et al. (2011). In South Africa, this is the minority of the population (Orthofer, 2016).

Legacy

Legacy planning refers to considerations of what will happen to a client's estate upon death, which is documented in a last will and testament, hereinafter referred to as a will. People may deny that they will die, meaning that any suggestion to write a will is contradictory to their beliefs (Roth, 1987). Dying intestate, i.e., without a will, has consequences. A court then decides who receives portions of the deceased's estate and who should care for any dependent children (Greenberg, Weiner and Greenberg, 2009).

Fewer than half of Americans above the age of 25 have a will (Greenberg et al., 2009). This could result in disputes when the deceased's assets are distributed in a way that heirs or close family feel is unfair, leading them to seek legal counsel (Feuerstein, Coric, Morgan, Temporini, Fortunati and Southwick, 2006). Greenberg et al. (2009) found that the most consistent predictors for an individual having a will were events such as having a child or facing a life-threatening event such as an illness or accident.

RESEARCH METHODOLOGY

DATA COLLECTION

The data for this study was obtained by accessing and manually extracting data from individual financial plans, as prepared by the practice's certified financial planners (CFP®) the first time the client visited it. It was necessary to obtain data of an individual's financial situation when he/she first approached the practice for financial advice as the study aimed to determine where they were falling short before they receive any corrective advice. Therefore, the study looks at the individual's financial situation before any financial advice has been given. No ethical clearance was needed for the study as data was obtained from documentation and no personal information was shared.

SAMPLING

Determining the common areas where individuals fall short in their financial plans is a detailed process as many aspects need to be considered. The required data was gathered from an independent financial planning practice based in Cape Town, South Africa, hereafter referred to as 'the practice'. Non-representative sampling allows a person to answer research questions, but the process can suffer from selection bias (Shorten and Moorley, 2014). To minimise sampling bias while using non-representative samples, explicit exclusion criteria must be applied (Panacek and Thompson, 2007). To facilitate this, it was decided to use financial plans that had complete data in respect of that individual only. Non-representative sampling techniques are commonly used as they are less costly (Goel, Obeng and Rothschild, 2015) and respondents are easier to obtain (Panacek and Thompson, 2007). Furthermore, attempting to gather and analyse all financial plans from all financial planning practices in South Africa would be time consuming and costly,

DATA CLEANING

As of March 2018, the practice had 732 clients for whom a financial plan had already been prepared. The practice classifies clients into categories, primarily based on their wealth. It was decided to exclude older individuals who are already in retirement, as older individuals would not need life cover as they likely have no dependents (Willows, 2019) and would not need income protection as they are no longer employed (Lkhagva, 2018). It was noted that 29 financial plans had incomplete data. As these plans did not provide adequate data to assess the individual's financial affairs they were also excluded. There were 107 financial plans that contained 'combined individuals' for which the financial affairs of two individuals, i.e., a spouse and partner, were combined. This rendered the data unreadable from the perspective of an individual and prevents analysis of the data on an individual basis and were excluded from the study, leaving a final sample of 495 clients that were used for analysis.

Research approach

The sample was separated into categories that relate to age, gender, income, expenditure and marital status. These demographics were then compared with those found by the 2016 Community Survey, a nationally representative household survey (Statistics South Africa, 2017). This allows the sample to be positioned appropriately within the South African economy to consider which types of people may be over- or under-represented in the sample, indicating what type of person is more likely to consult with this financial practice.

The second step in the analysis was to establish whether these clients took out cover for risks such as death, disability or severe illness, whether the sampled individuals had medical aid to cover their health risk and whether they had a valid will in place. The results for each of these variables were stratified by the available socioeconomic variables to highlight the areas where certain individuals tend to be underprepared. The study was exploratory in nature.

RESULTS AND DISCUSSION

DEMOGRAPHICS

For most of the variables (age, gender and marital status), classification was straightforward as the information was available on each financial plan. However, income and expenditure, while taken from financial plans, needed an additional consideration: the time value of money. This was because the information was collected from plans that were drawn up at different points in time and was done

by incorporating the time value of money by classifying income and expenses into tax brackets. This approach is similar to that followed by Kemp (2019) whereby taxpayers are grouped into tax brackets, based on taxable income. The South African individual's tax tables for the year of assessment that the individuals' financial information was provided to the practice, was applied. The lowest bracket an individual can fall into is bracket 1, with 6 being the highest bracket.

For marital status, 'single' was defined to comprise individuals that are single, divorced or widowed. Those who did not disclose their relationship status were labelled as 'undisclosed'. Lastly, 'married' comprises individuals who are married (in whatever form i.e., ante-nuptial contract (ANC), ANC with accrual, in community of property (COP), unknown legal status, engaged or have a live-in relationship).

Table 1 presents the 495 clients separated by age, gender, marital status, income and expenditure. This provides preliminary detailed information regarding the type of client that consults a financial planning practice.

TABLE 1: DESCRIPTIVE STATISTICS (n = 495)

	Sample (n = 495)	Age (n = 298*)	Income bracket (n = 284*)	Expenditure bracket (n=135*)
Total	495 (100%)	$\bar{x} = 40$ ($\tilde{x} = 38$)	$\bar{x} = 3.51$ ($\tilde{x} = 3$)	$\bar{x} = 2.61$ ($\tilde{x} = 2$)
Gender				
Male	245 (49%)	$\bar{x} = 39$ ($\tilde{x} = 37$)	$\bar{x} = 3.79$ ($\tilde{x} = 4$)	$\bar{x} = 2.68$ ($\tilde{x} = 2$)
Female	235 (47%)	$\bar{x} = 41$ ($\tilde{x} = 38$)	$\bar{x} = 3.24$ ($\tilde{x} = 3$)	$\bar{x} = 2.51$ ($\tilde{x} = 2$)
Undisclosed	15 (3%)	$\bar{x} = 42$ ($\tilde{x} = 41$)	$\bar{x} = 3.33$ ($\tilde{x} = 3$)	$\bar{x} = 3.50$ ($\tilde{x} = 3.50$)
Marital status				
Married	223 (45%)	$\bar{x} = 40$ ($\tilde{x} = 38$)	$\bar{x} = 3.58$ ($\tilde{x} = 3$)	$\bar{x} = 3.47$ ($\tilde{x} = 4$)
Single	215 (43%)	$\bar{x} = 40$ ($\tilde{x} = 36$)	$\bar{x} = 3.33$ ($\tilde{x} = 3$)	$\bar{x} = 2.24$ ($\tilde{x} = 2$)
Undisclosed	57 (12%)	$\bar{x} = 43$ ($\tilde{x} = 42$)	$\bar{x} = 4.19$ ($\tilde{x} = 4$)	$\bar{x} = 1.75$ ($\tilde{x} = 1.50$)

$\bar{x}$ = sample mean, equating to the average value found in the sample.

$\tilde{x}$ = sample median, equating to the value that separates the higher and lower half of the sample.

* Within the sample, information on gender and marital status is available for all 495 individuals, but not for age, income and expenditure. Thus, the sample size is reduced when stratified by these variables.

The sample consisted of a relatively equal split between males (49%) and females (47%), a finding consistent with previous literature that found the same relative split with slightly more males (57.6%) using financial planners than females (54.1%) (Olsen and Whitman, 2007). In 2016, the South African population comprised 51% females (Statistics South Africa, 2017), whereas the study sample consists of 47% females. Thus, there is an under-representation of females and over-representation of males in the sample. Gender ideologies (Willows and October, 2021) cause men to take a more dominant role in financial planning (Griffin, Loe and Hesketh, 2012) which may involve the use of a financial planner, likely being the reason for the overrepresentation of males.

A relatively equal split is also seen between married (45%) and single (43%) individuals. Although the proportion of married individuals in the sample is marginally more than their single counterparts, this finding does not convincingly support the notion that married individuals are more likely to seek out financial advice (Hung and Yoong, 2012). The reason for this difference could be related to the age of the sample. More than 58% of the sample used by Hung and Yoong (2012) were above the age of 45 years. In this sample, less than 25% were above the age of 45 years. This might explain why a relatively equal split was found as more individuals are married by their 40s than their early 30s (Arnett, 2012). However, considering that only 26% of South Africans are married (Statistics South Africa, 2017), married individuals are over-represented in the sample to a large extent. This implies that the study findings could support the notion that married individuals are more likely to seek out financial advice (Hung and Yoong, 2012). The results suggests that in marital relationships,

it is likely that the male partner is the one engaging with the financial planner. Females' retirement decisions are strongly linked to their spouses (Moen et al., 2005) and men have been conditioned by the expectations of society to take a more dominant role in financial planning (Griffin et al., 2012). However, as women tend to live longer than men (Hasler and Lusardi, 2017) and a lack of involvement in financial decision-making is strongly related to discontinuing the use of a financial planner (Cummings and James, 2014), females may terminate a relationship with the financial planner after their spouses' death (Prudential, 2012). This decision would be detrimental to their future financial position, as seeing a financial planner is beneficial (Klosterman, 2014; Willows, 2020) which suggests that financial planners should aim to engage with both partners.

The average age of the sample was 40 years, with the most common age being 32 years old. More than 76% of the individuals were above the age of 31 years, affirming the sentiment that individuals tend to seek financial advice as they get older (Olsen and Whitman, 2007); Ng et al. (2011). There is a distinct lack of individuals aged 20–24 in the sample, likely because younger individuals are less inclined to consult with financial planners as they attach less value to the advice (Marsden et al., 2011) or might not yet earn an income due to being full-time students (Curtis and Shani, 2010).

With respect to income, the average individual who consulted the practice for financial planning advice was in the third income bracket. Between 2003 and 2015 almost 60% of the South African population had zero taxable income (Bassier and Woolard, 2021), meaning that these individuals would be placed at the very bottom of the first income bracket. Expectedly, the sample is visibly over-represented by wealthier individuals, confirming the suggestion that because financial planning requires monetary obligation, it will be the higher income groups that can afford it (Ng et al., 2011). Many individuals in the sample fall into the higher income brackets, emphasising the difference between the study sample and the South African population (Bassier and Woolard, 2021).

Married individuals in the sample, on average, were wealthier than single individuals. This finding is similar to Dunga (2017) who confirmed the perception that married people on average have higher incomes compared to those who are single. The average income bracket for males is 3.79, which is above the sample average and above the average income bracket for females (3.24). Adelekan and Bussin (2018) found that in South Africa, men earn a higher income than women performing similar work. This gender pay gap is more apparent when looking only at married individuals.

When considering expenditure, the average individual in the sample was in the second expenditure bracket (2.61), which is below the average income bracket, indicating that, on average, the sample spent less than they earned. Married individuals (third expenditure bracket) spent more than their single counterparts (second expenditure bracket), likely because married individuals have more financial responsibilities (Dickason and Ferreira, 2019).

EMPIRICAL RESULTS RELATED TO RISK EVENTS

Table 2 provides the results of all the risk cover, the medical aid and a valid will compared to all the demographics of the sample. The study considered whether the sample had death cover, disability cover and severe illness cover, as well as establishing if the desired cover would be adequate. Whether the sampled individuals had medical aid to cover their health risk and whether they had a valid will in place were also established.

The results indicated that most individuals are uninsured for risks relating to their health (56%), death (62%), disability (63%) and severe illness (84%) and do not have a will (63%). However, the study also found that those who were male, married, in higher income brackets and middle-aged tended to be more prepared. Consequently, the individuals more likely to see a financial planner were also more likely to have cover for risk events. This could indicate that individuals who seek out financial planners are more likely to already have risk cover. When considering those who had cover, the degree of cover they had was deemed sufficient using standards from the literature.

Membership of a medical aid was the most popular form of insurance irrespective of income. Medical aid is common in South Africa (Byabashaija, 2009) likely due to the introduction of the Government Employee Membership Scheme which made medical aid membership more affordable (Sello et al., 2011). The popularity of medical aid in the sample is heightened as they are wealthier, making affordability less of a concern. Wealthier individuals were more likely to have all forms of insurance and a will. They can better afford the various forms of insurance (Johnson, 2016). Notwithstanding medical aid, males were more likely than females to have any form of insurance. However, single males were the most vulnerable to the risks of death and severe illness with the lowest coverage rates of 33% and 13% respectively. Furthermore, single males were the least likely to have a will (34%) and all three forms of risk cover (11%). This might be because single males are less risk averse (Aren and Hamamci, 2020) and have fewer financial responsibilities (Dickason and Ferreira, 2019).

TABLE 2: RESULTS OF ALL THE RISK COVER, MEDICAL AID AND VALID WILL COMPARED TO DEMOGRAPHICS

		<i>Death Cover</i>		<i>Disability Cover</i>		<i>Severe Illness Cover</i>		<i>Risk cover (Collective)</i>		<i>Medical aid</i>		<i>Will</i>	
		<i>% of sample</i>	<i>% of Subgroup</i>	<i>% of sample</i>	<i>% of Subgroup</i>	<i>% of sample</i>	<i>% of Subgroup</i>	<i>% of sample</i>	<i>% of Subgroup</i>	<i>% of sample</i>	<i>% of Subgroup</i>	<i>% of sample</i>	<i>% of Subgroup</i>
Total sample		38		37		16		14		44		37	
Marital Status													
	<i>Married (n = 223)</i>	54	46	52	42	53	18	55	17	48	47	49	40
	<i>Single (n = 215)</i>	40	35	41	35	40	14	38	12	49	49	46	40
	<i>Undisclosed</i>	6		7		6		7		3		5	
Gender													
	<i>Male (n = 245)</i>	48	37	50	37	52	16	52	15	46	40	44	33
	<i>Female (n = 235)</i>	42	34	41	31	40	13	41	12	45	42	47	37
	<i>Undisclosed</i>	10		9		8		7		9		9	
Income													
	<i>Bracket 1 (n = 29)</i>	9	59	8	52	6	17	7	17	8	59	9	55
	<i>Bracket 2 (n = 68)</i>	17	47	18	49	21	24	19	19	26	82	23	63
	<i>Bracket 3 (n = 59)</i>	20	63	19	59	17	22	14	17	20	73	19	59
	<i>Bracket 4 (n = 44)</i>	16	68	16	66	19	34	20	32	13	66	13	55
	<i>Bracket 5 (n = 25)</i>	8	60	8	60	6	20	6	16	7	64	10	72
	<i>Bracket 6 (n = 59)</i>	23	75	23	71	26	34	29	34	20	75	21	64
	<i>Undisclosed</i>	7		7		4				5		5	
Age													
	<i>24-30 (n = 64)</i>	12	36	15	42	17	20	13	14	23	78	15	42
	<i>31-40 (n = 106)</i>	40	72	38	65	44	32	46	30	35	72	34	59
	<i>41-50 (n = 70)</i>	28	76	29	76	23	26	26	26	21	66	24	63
	<i>51-60 (n = 41)</i>	15	68	14	63	13	24	12	20	13	71	17	78
	<i>61-74 (n = 17)</i>	3	35	2	24	0	0	0	0	5	65	8	88
	<i>Undisclosed</i>	2		1		3		3		2		2	

PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

The average individual that consulted with the practice is middle-aged, in the third income bracket and spending less than what is earned. The average individual was more likely to be a higher income-earning married male. This study also found that most individuals are uninsured for risks, however, on average those who were male, married, in higher income brackets and middle-aged tended to be more likely to see a financial planner and were also more likely to have cover for risk events. It must be reiterated that while these results are relevant to this practice, they still indicate possible trends which can provide useful information for marketing. A limitation was that only one practice was evaluated as part of the particular study and therefore the results of the study can not necessarily be generalized. However, the results from this study corresponds with that from other international studies and contribute towards South African literature, as this study has not been attempted before.

Recommendations thus include targeted marketing by service providers of risk cover and the writing of a will towards single males, given that they were the least likely to have either product. Single females should be reminded of the financial consequences of disability as they were the least likely to have disability cover. This is especially relevant considering that they would not have a partner with whom they could pool resources (Lauer and Yodanis, 2011) or rely on (Bloome et al., 2019) if they were to become disabled. In addition, most individuals did not have cover for severe illness irrespective of their income, supporting findings that this type of cover is rarely used (Schendel, 2014). Many lack the motivation to purchase cover (Lin, Hsiao and Yeh, 2017), but it is important (Opiela, 2004). Service providers should market the need for severe illness cover to all individuals. Wealthier individuals may be receptive to this as they can afford it (Johnson, 2016). Those younger than 31 years of age should be reminded of the benefits of having a will as most did not have one, likely due to the absence of serious life events (Greenberg et al., 2009).

CONCLUSION

The benefits of consulting with a financial planner and having a holistic financial plan cannot be disputed. Although it is acknowledged that not everyone can afford to see a financial planner, targeted marketing strategies for those who can afford it is necessary. This study aimed to examine the type of person that would consult a financial planning practice, as it would give insight into the often-neglected areas in the financial plan. It was found that clients do not have the necessary risk cover, medical aid or a valid will. This information can then be used to target specific individuals and effectively market to them.

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Developing a hypothetical model of organisational citizenship behaviour (OCB) in South African rail and road transport state-owned enterprises

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ABSTRACT

The South African transport infrastructure enables the movement of people and commodities on national and international markets, and directly contributes to the country's competitiveness in global markets. It is the most developed on the African continent. The main purpose of this study is to develop a hypothetical model of OCB in the rail and road transport state-owned enterprises (SOEs) of South Africa, specifically, Transnet Freight Rail (TFR) and South African National Roads Agency Limited (SANRAL). A proposed hypothetical model of the study, based on two previously developed theoretical models, is rooted on nine independent variables, the intervening role of OCB, and three outcomes. The South African Department of Transport will benefit from the findings of the study because greater insight of OCB practices in government entities will be brought to light and may be used as guidelines to assist in developing effective strategies for policy formulation and decision-making processes globally.

Keywords: Rail and road transport sector, OCB, South African State-owned enterprises, organisational effectiveness.

INTRODUCTION AND BACKGROUND OF THE STUDY

New trends in the transport sector call for businesses to be customer-centric, in order to satisfy the needs of different and diverse segments (KPMG, 2019:9). The economic data indicates that in South Africa, the transport, storage and communication sector contribute 9.3% to the country's Gross Domestic Product (GDP), and the transport sector alone contributes about 6.5% (statssa, 2017); and employment in the transport sector recorded 951 000 employees. The South African rail and road infrastructures are the most developed in Africa and each sector (formal or informal) is responsible for more than 30 000 jobs countrywide (TFR, 2020). Uncertainties caused by internal and external organisational changes are demoralising (Fusch, Ness, Booker & Fusch, 2020:172) and sparks resistance in employees. These uncertainties necessitate organisations to rely on employees who are unwavering and dedicated to steer organisations to sustainable tangible results (Deloitte, 2020).

Organisational effectiveness and sustainability require strategical business foresight, sustained diligence from all organisational stakeholders, and changing organisational

climates and cultures (Atta, Lashari, Rana & Atta, 2019:56). In this respect, promoting OCB anchors organisational performance and profitability, to sustain organisational longevity. Thus, this research study seeks to gain greater understanding of the antecedents and effects of the organisational citizenship behaviour (OCB) on the transportation (rail and road) sector of South Africa.

PROBLEM STATEMENT

Restructuring and downsizing have become common phenomena within organisations, causing them to lose many competent and skilled employees due to economic downturns on a global scale. Similar adversities linked to restructuring and downsizing, affected the performance in terms of efficiency and effectiveness of the rail (Transnet Freight Rail (TFR)) and roads (South African National Roads Agency Limited (SANRAL)) transport sector in South Africa, which have caused many challenges for those in the sector. Whilst employees try to adjust and cope with internal and external changes, psychological challenges hinder productivity. Lekgothoane, Maleka and Worku (2020:432) cite previous research studies that showed that a hostile culture exists in South Africa SOEs. Job insecurity and uncertainties cause employees to focus on themselves and only provide the minimum of what is expected from them (Alshaabani, Naz, Magda & Rudnak, 2021:1). When an organisational culture is hostile, employees do not come to work and there is evidence that employees only do their jobs and not work beyond the call of duty (Lekgothoane, *et al.* 2020:433).

The main research problem of this study is the potential existence of an unhealthy hostile organisational culture in South African rail and road transport SOEs, where employees are not willing to go an extra mile for the organisation due to organisational changes taking place within the enterprises. Thus, the research main research question to be addressed is: *What is the state of OCB and the factors influencing OCB in the South African rail and road transport SOEs?*

RESEARCH OBJECTIVES PRIMARY OBJECTIVES

The primary objective of this study is to investigate the state of OCB and the factors influencing OCB in the South African rail and road transport SOEs.

SECONDARY OBJECTIVES

The following are ascertained secondary research objectives, which form the basis of this study:

- To investigate how the leadership styles in TFR and SANRAL influence OCB,
- To investigate how the organisational culture of TFR and SANRAL influence OCB,
- To investigate whether management support in TFR and SANRAL influence OCB,
- To investigate whether personal importance have any effect on OCB at TFR and SANRAL,
- To investigate whether transparency influence OCB at TFR and SANRAL,
- To investigate how job autonomy in TFR and SANRAL influence OCB,
- To investigate how employee trust in TFR and SANRAL influence OCB,

- To investigate how two-way communication influence OCB in TFR and SANRAL,
- To investigate whether employee commitment significantly influence OCB at TFR and SANRAL,
- To investigate whether OCB increase organisational performance at TFR and SANRAL,
- To investigate whether OCB increase employee retention at TFR and SANRAL, and
- To investigate whether OCB stimulate service delivery at TFR and SANRAL.

The following are the research design objectives of the study:

- To critically assess the relevant literature pertaining to OCB,
- To design a theoretical model for the influences and outcomes of effective OCB in TFR and SANRAL,
- To develop a measuring instrument that tests the views of employees and management pertaining to OCB at TFR and SANRAL,
- To logically measure the relationships that exist between the independent, intervening and the dependent variables as pertaining to OCB, and
- To provide guidelines and recommendations to management on how OCBs can be efficiently performed and enhanced at TFR and SANRAL.

THEORETICAL FRAMEWORK Clarification of key concepts

Key concepts pertaining to this study are outlined in this section.

ORGANISATIONAL CITIZENSHIP BEHAVIOUR (OCB)

Romaiha, Maulud, Ismail, Jahya, Fahana and Harun (2019:126) refer to OCB as voluntary behaviours acted by employees, demonstrating nobility and capability of doing work that exceed their minimum requirements in their job description. Along the same line, Thiagarajan, Isravel and Durairaj (2017) define OCB as positive and constructive voluntary actions employees display, supporting other co-workers and overall, benefiting the organisation. These are special discretionary behaviours (Alshaabani, *et al.*, 2021) and are often not monetary rewarded. Azmy (2021:152) describes OCB as a collection of additional assistance, direction and behaviour, performed by employees. Jena and Pradhan (2018:380) argue that OCB entails roles individuals play in organisations that contribute directly to organisational productivity and effectiveness. Thiagarajan, *et al.*, (2017) concur that OCB can increase employee productivity, company performance, and make companies better able to adapt to environmental changes. Therefore, for the purpose of this study, OCB is defined as voluntary and discretionary behaviours, displayed by employees, that are not rewarded by remunerating systems, but are necessary for the effective functioning of the organisation.

DIMENSIONS OF OCB

There are several dimensions of OCB, including, altruism, general compliance, conscientiousness, loyalty, amongst others. However, for the purpose of this study, seven dimensions of OCB as identified by Thiagarajan, *et al.* (2017), will be adopted and are described as follows:

- Helping behaviours - voluntarily helping others.
- Sportsmanship - positive attitude where individuals are not opposed when inconvenienced by others.
- Organisational loyalty – positively promoting one's organisation and staying committed to the organisation.
- Organisational compliance - obedience towards policies.
- Individual initiative – initiatives where employees apply critical thinking to solve work related challenges.
- Civic Virtue - employee's responsible and constructive participation.
- Self-development - employee's self-development initiatives to increase job performance.

SOUTH AFRICAN ROAD AND RAIL TRANSPORT SOES

Transnet Freight Rail (TFR) is Transnet Group's largest operating division, specialising in heavy haul and general freight transportation with an extensive railway network of 31 000 km across South Africa (Transnet, 2020:4). The rail network serves as infrastructure for both passenger and commodity train transportation. The railway connectivity of TFR is interconnected with the neighbouring Sub-Saharan railway lines of which TFR represents approximately 80% of the rail connections (Transnet, 2017:2) and as such, is considered as the logistics gateway of the continent (GAIN Group, 2020:9). TFR operates in the Agriculture and Bulk Liquide, Coal, Containers and Automotive Business, Iron Ore and Manganese, the Steel and Cement as well as the Mineral Mining and Chrome segment.

The South African National Roads Agency (SANRAL) is a state-owned entity (Rust, Sono, Van Dijk, Fourie & Smit, 2021:22) commissioned to provide effective and reliable road infrastructure for the promotion of sustainable functioning of the vastly connected road system that extends to the network of 22 262 km in nine provinces of South Africa. For the purpose of this study, five provinces, namely, Eastern Cape, Free State, Gauteng, Northern Cape, and Western Cape, will be investigated.

OCB IN THE TRANSPORT SECTOR

OCB had been highly valued and viewed as critical in enhancing government organisations (Norasherin, Rohaida, Mozdeh, Siti Zaleha, & Nor Aiza, 2016). Previous research on OCB in transport companies of Port Harcourt, Nigeria, found that workers' extra-role behaviour measured in terms of self-development, individual initiative and enterprise compliance among workers in the road transport, is strongly dependent on the social intelligence of the supervisors and managers of the independent road transport companies (Eketu & Edeh, 2015). Shin and Hur (2019) found that acquiring job resources and challenging job demands is critical to flight attendants' performance of daily OCB. Puswari, Hinduan, Sulastiana & Harding (2019:107) found that employees of the railway transportation service provider's exhibition of CO-OCB is influenced by individual characteristic factors like working attitude, and contextual factors. It is envisaged that through OCB practices in the transport sector of South Africa, an improvement in organisational effectiveness and efficiencies will be observed and will consequently lead to increased business prospects and revenue growth both for the rail and road sectors.

RESEARCH METHODOLOGY RESEARCH METHODOLOGY AND DESIGN

This study adopts quantitative research methodology. A suitable research design for the proposed study is explanatory research.

RESEARCH PARADIGM

The study adopts a positivist approach. This approach will be implemented with the aim of determining the causal relationships between the variables under investigation, by using methods founded on logical inferences. The quantitative research is used to determine the relationships between variables and outcomes (Rutberg & Bouikidis, 2018:211).

POPULATION AND TARGET POPULATION

The target population of the proposed study comes from TFR and SANRAL, and is drawn from executive managers, senior level managers, junior level managers, first line managers, safety and compliance employees, security, administrative and technical junior employees in the Eastern Cape, Free State, Gauteng, Northern Cape and Western Cape provinces of South Africa.

SAMPLING

This study adopts a simple random sampling technique. The aim of using this technique is to reduce researcher bias. A general rule for sampling is that the minimum sample size should have at least five times as many observations (items) as the number of variables to be analysed (Ahmad & Halim, 2017:31). Furthermore, Ahmad and Halim (2017) indicate that a minimum sample of 500 is required for models with a higher number of constructs. In this study, there are twelve constructs (consisting of five to ten items per construct) that will be measured, as depicted in the hypothesised model (Figure 1). Therefore, this study targets 500 participants from TFR and SANRAL.

DATA COLLECTION

For the proposed study, primary data will be collected by means of electronic questionnaires. These questionnaires will be distributed online via email to the TFR and SANRAL staff from the Eastern Cape, Free State, Gauteng, Northern Cape, and Western Cape provinces of South Africa. Secondary data will be collected from academic journals, relevant published books and the relevant internet platforms.

RESEARCH INSTRUMENT

The measuring scale that will be used in the proposed study is an ordinal seven-point Likert-type scale (ranging from strongly agree [7] to strongly disagree [1] (Taherdoost, 2016:7). The 7-point Likert-type scale affords the participant more variety choices,

which in turn, increase the chance of meeting the objective reality of people (Joshi, Kale, Chandel & Pal, 2015) and offers more independence to a participant to select the most preferred statement, rather than a close-related statement (Dawes, 2008).

The questionnaire consists of the following four sections:

Section A: A seven-point ordinal Likert-type scale used to analyse the effects of the independent variables on OCB practices.

Section B: A seven-point ordinal Likert-type scale used to analyse the impact of OCB on the dependent variables.

Section C: A seven-point ordinal Likert-type scale used to analyse the perceptions of participants regarding OCB in the South African rail (TFR) and roads (SANRAL) transport sector.

Section D: This section consists of questions soliciting information regarding the demographic data of the participants using a nominal scale.

PILOT STUDY

To ensure that high-quality outcomes are obtained from this study, a pilot study will be conducted by distributing structured questionnaires via email to 20 participants from TFR and SANRAL.

DATA ANALYSIS

The data analysis procedure for this study will encompass data validation; a coding system will be used to record the collected data on a Microsoft Excel spreadsheet, and the data will be edited. The STATISTICA 14.0 will be used to draw statistical analyses from the collected data. The statistical techniques include descriptive statistics and inferential statistics, such as exploratory factor analysis,

Pearson's correlation analysis and multiple regression analysis. Descriptive statistics (mean and standard deviation) is used in the study and can be generalised to the entire population (Sulistyani, 2019). Inferential statistical analysis is used to allow the researcher to test the hypothesised relationships and to draw conclusions based on statistical evidence (Doucette, 2017:54). Exploratory factor analysis (EFA) is used to discover the principal variables, thus building a theory or model through a set of hidden dimensions, via a set of indicators. Pearson's correlation analysis is conducted to compare the extent of association amongst the independent variables and OCB, as well as the degree of correlation between OCB and the dependent variables. Multiple regression analysis is conducted to examine the relationship between the independent variables and the dependent variables, as well as the intervening variable.

RELIABILITY AND VALIDITY OF THE MEASURING INSTRUMENT

Internal consistency will be tested by means of Cronbach's alpha coefficient to demonstrate the reliability of the measuring instrument. The validity of study constructs will be tested using exploratory factor analysis in order to determine the extent to which

a group of variables actually represents the construct to be measured (Souza, Alexandre & Guirardello, 2017:653). Content validity for the measuring instrument will be validated by experts in the fields of organisational behaviour and change management, prior to the distribution of the questionnaire to participants.

FOUNDATION OF THE HYPOTHETICAL MODEL OF THIS STUDY

This study's hypothetical model was developed through consideration of two previously developed theoretical models:

KUMARI AND THAPLIYAL'S MODEL (2017)

Kumari and Thapliyal (2017:13) developed a model to test the effect of OCB on organisational effectiveness on the cement division of Jaiprakash Associate Ltd, in India. The study findings indicate that there is a significant relationship between the five dimensions of OCB and organisational effectiveness. Sportsmanship and organisational effectiveness were found to be most favourable.

KHAN, ISMAIL, HUSSAIN AND ALGHAZALI'S MODEL (2020)

Khan, Ismail, Hussain and Alghazali (2020) examined and tested a conceptual model on the interplay of leadership styles on innovative work behaviour, with organisational culture and organisational citizenship behaviour playing mediating and moderating roles among head of departments in higher education institutions in Pakistan. The results of the study found a positive and significant moderating effect of OCB on the relationship between transformational and transactional leadership styles, and innovative work behaviour. In addition, the study reveals that transformational leadership allows academic leaders to perform better in making their employees creative and innovative. Furthermore, the results show that organisational culture, which is embedded on supportive leadership, lead to employees' autonomy, self-esteem and creativity, and eventually leads to improved organisational performance.

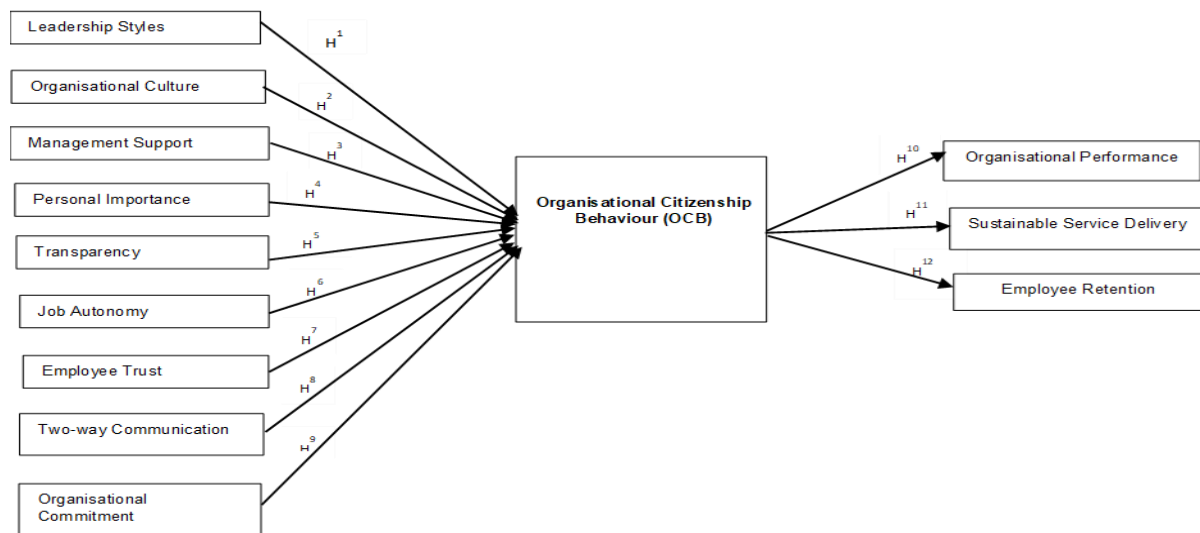
HYPOTHETICAL MODEL AND HYPOTHESES OF THE STUDY

The proposed hypothetical model of the study is depicted below:

FIGURE 1:

HYPOTHETICAL MODEL OF THE STUDY





(Author's own illustration)

HYPOTHESES OF THE STUDY

The hypotheses that will be tested are as follows:

- H1: There is a relationship between leadership style and OCB.
- H2: There is a relationship between organisational culture and OCB.
- H3: There is a relationship between management support and OCB.
- H4: There is a relationship between personal importance and OCB.
- H5: There is a relationship between transparency and OCB.
- H6: There is a relationship between job autonomy and OCB.
- H7: There is a relationship between employee trust and OCB.
- H8: There is a relationship between two-way communication and OCB.
- H9: There is a relationship between organisational commitment and OCB.
- H10: There is a relationship between OCB and organisational performance.
- H11: There is a relationship between OCB and sustainable service delivery.
- H12: There is a relationship between OCB and employee retention.

OPERATIONALISATION OF THE VARIABLES

Table 1 below summarizes the operationalisation of variables in this study.

TABLE 1:

OPERATIONALISATION OF THE VARIABLES

Variables	Definitions	Authors
Independent variables		

Leadership	Refers to the way in which a leader influences the behaviour of their subordinates so that they would be willing to work together, and work productively, in order to achieve organisational goals.	Ghani, Mohamed, Tajudin & Muhammad, (2021); Sürücü & Maşlakçı (2021)
Organisational culture	It is an elusive phenomenon that is characterised by the quality of the social climate within the organisation and determining the foremost work positions of all workers.	Carvalho, Sampaio, Rebentisch, Carvalho & Saraiva (2019)
Management support	Mutual obligation where managers are required to support employees in handling challenges.	Travaglione, ScottLadd, Hancock & Chang (2017:25)
Personal importance	Personal importance refers to the strongly held doctrine or personal set of values which an individual exhibit through their behaviour.	Muzvidziwa (2015:166)
Transparency	Transparency is the timely disclosure, clarity and degree of accurateness in information.	Akhigbe & Akhigbe (2021:2) Kral (2020:16854)
Job autonomy	Job autonomy refers to the degree to which the job provides substantial freedom, independence and discretion to the individual in scheduling the work and in determining the procedures to be used in carrying it out.	Yang, Pandey, Liao & Dobson (2017:45)
Trust	Is one party's level of confidence in and willingness to open itself up to the other party. It is comprised of three dimensions: integrity, dependability and competence	Lee, Mazzei & Kim (2018); Koodamara, Rao, Prabhu, Noronha & Rao (2019).
Two-way communication	The interaction process between people, where meaning is exchanged, or feedback is provided.	Van Ruler (2018:369) Bhasin (2021)
Organisational commitment	An attitude reflecting feelings such as attachment, identification and loyalty to the organisation, to achieve organisational goals.	Kundu & Mor (2016); Astutia & Ingsihb (2019).
Intervening variable		
Organisational Citizenship Behaviour	OCB are voluntary behaviours enacted by employees, which demonstrate nobility and capability of doing work that exceeds their minimum requirements in their job description.	Romaiha, <i>et al.</i> , (2019); Alshaabani <i>et al.</i> (2021)
Helping behaviours	Helping behaviours are voluntarily behaviours by helping others.	Krimbill, Goess and Escobedo (2019)
Sportsmanship	Sportsmanship refers to positively attitudes individuals portray and are not opposed when inconvenienced by others.	Thiagarajan, <i>et al.</i> (2017); Kumari and Thapliyal (2017)
Organisational loyalty	Positively promoting one's organisation and staying committed to the organisation.	Islam & Afroz, (2016)
Organisational compliance	Organisational compliance is the obedience towards organisational policies.	Romaiha, <i>et al.</i> , (2019); Thiagarajan, <i>et al.</i> (2017)
Individual initiative	Refers to an employee's application of critical thinking to solve work related challenges.	Thiagarajan, <i>et al.</i> (2017)
Civic Virtue	Civic virtue is employee's responsible and constructive participation.	Byun, Kang, Law, Jeon and Seo (2020)

Selfdevelopment	Employee's self-development initiatives to increase job performance.	Thiagarajan, <i>et al.</i> (2017)
Dependent variables		
Organisational performance	Organisational performance is the ability to utilise resources efficiently to produce outputs that are coherent with the objectives and relevance to the users of the organisation.	Leitão, Pereira & Gonçalves (2019:3)
Organisational sustainability	It is the ability of an organisation to contribute to sustainable development, while offering economic, social and environmental benefits.	Tur-Porcar, Roig-Tierno, & Llorca Mestre (2018)
Employee retention	Holding on to scarce skills and engaging in the services of high potential and high value contributors.	Amushila & Bussin (2021); Tian, Iqbal, Akhtar, Qalati, Anwar & Khan, <i>et al.</i> , (2020)

Source: Author's own illustration

SIGNIFICANCE AND CONTRIBUTION OF THE STUDY

Given the fact that there is a lack of research attention given to the behaviour of employees in the transport sector in South Africa, the significance and contribution of the study will be as follows:

- The study will contribute to the South African public rail (TFR) and roads (SANRAL) sector as it will provide a greater understanding of the influences of OCB amongst employees.
- It will contribute to the body of knowledge as more literature, mainly, on organisational behaviour and HRM, will be available with specific reference to the effective influences and outcomes of OCB in the rail and roads transport sector in South Africa and globally.
- This study will provide an opportunity for Human Resources practitioners to develop policies and strategies to combat hostility in the workplace and take the initiative in conducting workshops for the developing organisational human capital with acceptable level of knowledge, skills and good values, in order to stimulate service delivery and organisational performance through competitiveness in the rail and road sector globally.
- It will provide implementable practical guidelines to HRM, OCB experts, institutions of higher learning and SOEs, in order to enhance OCB.
- It will assist the South African Department of Transport decision makers with greater insight of OCB practices in government entities and provide a comprehensive understanding of factors that influence and enhance OCB of employees.
- The findings of this study will assist the transport sector in developing effective strategies that will be used in decision-making processes when human resources policies are formulated.
- The findings will also create a platform for supplementary research and progress in theory to understand determinants and outcomes of OCB in the rail (TFR) and roads (SANRAL) transport sector globally, as well as in different settings.
- Recommendations from this study will assist South African SOEs' management to address challenges of inefficiencies and poor performance through the implementation and development of conducive working environment to practice OCB.

- The recommendations will further show how organisations may advance and create a healthier organizational environment through OCB.

It is fitting to conclude this paper with the following quote:

“ Employees follow the development of information and digital technology and are active in social media, ...There are several differences in employees today than with employees in the past. With the ease of global information, today's employees have easier access to incoming foreign cultures, all of which are not necessarily good, such that they have an impact on the behavior or OCB of employees “.

Sumarsi & Rizal (2022).

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An examination of the impact of organisational culture on integrated communication: the case of the Government Communication and Information System in Polokwane.

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ABSTRACT

Integrated Communication (IC) combines all forms of communications (internal and external) into one manageable organisational unit. IC is equivalent to quality management in its focus on enhancing the whole organisation. IC is concentrated on the management of long-term relationships of both an organisation and its differing internal and external stakeholders (Gronstedt, 1996). This study examined the impact of organisational culture on integrated communication at the GCIS in Polokwane. Data for the study was collected through individual interviews from GCIS employees and content analysis and a structured document review organisational documents. Both data collected were analysed through thematic analysis, to understand the manifestation of integrated communication at GCIS on different perspectives. The results highlight the approximate level of understanding the GCIS employees have on integrated communication.

Keywords: organisational culture; integrated communication; qualitative research; organisational communication.

INTRODUCTION

This study explored organisational culture and examined its impact on communication integration in an organisation. Organisational culture varies, and how it is viewed by organisations affects attitudes towards communication. The aim of this study was to examine the culture of an organisation, understand the concept of culture and examine how it is viewed by the organisation. Most importantly, the study investigated the impact of organisational culture on the integration of communication. Organisational culture is approached from three perspectives namely; integration, differentiation, and fragmentation.

However, it can be viewed from various approaches to be discussed in the literature. Communication in an organisation is divided into several fields. Barker and Angelopulo (2006) stated that “the more prominent fields that deal with communication in the organisational context are: business, management, corporate, public relations, and marketing communications”. However, this study will focus particularly on an examination of organisational communication and analyse how organisational members integrate communication into the organisation’s culture. IC can form the foundation to create, maintain, and sustain relationships with both internal and external stakeholders.

IC encourages openness or interdependency among organisational members or departments in order to achieve the organisational goals. Integration of communication is therefore important as it enables the organisational members to develop long-term relationships with stakeholders, creates clear communication channels and a more effective means of transferring data from one individual to another. Organisational communication is important for organisations to function, and it provides direction of commonly acceptable behaviours which contribute to organisational culture. Therefore, a well-planned organisational communication strategy can contribute to a clear understanding of organisational culture.

The researcher examined the Government Communication and Information System (GCIS) in Polokwane in order to complete the study. The GCIS became functional in 1998 and was established

‘in terms of Section 7 (subsection 2 & 3) of the Public Service Act’ Comtask Report of 2000. The GCIS is an organisation that strives to provide professional services, share coherent government messages and communicate with citizens about government plans, programmes, policies and success stories.

The mandate of the GCIS is to ‘co-ordinate, judge and advise on government communication (including media liaison, development communication and marketing)’ (Annual Report, 1998/99). Their primary vision is to seamlessly achieve integrated and co-ordinated communication between the government and South African citizens to promote participation in the country’s transformation. This research examined whether the organisation has achieved this goal and successfully integrated and co-ordinated communication between the government and the public.

ORGANISATIONAL CULTURE

Only two approaches to organisational culture are dominant, an approach that views organisational culture as what an organisation *has* and an approach that views organisational culture as what an organisation *is* (Dainton and Zelle, 2011). For the purposes of this study, organisational culture is viewed as what an organisation is, to integrate an organisation. However, there are many varying views as to what organisational culture can be.

Organisational culture refers to the deeply seated (often-subconscious) values and beliefs shared by the employees in an organisation. The organisational culture is manifested in the typical characteristics of the organisation. It therefore refers to a set of basic assumptions that worked well in the past that they are accepted as valid assumptions within the organisation

(Martins and Terblanche 2003). Hence, organisational culture is often perceived as the right, accepted way of doing things within that organisation. This means that the researcher refers to organisational culture as a collective of distinct behaviours, attitudes, beliefs, and norms adopted and shared by most individuals in the organisation. It serves as the dominant organisational culture, which may differ from that adopted and shared by individuals of other organisations.

THE IMPORTANCE OF ORGANISATIONAL CULTURE

Organisational culture speaks of those qualities of the organisation that give it a particular climate or feel. Scott, Mannion, Davies and Marshall (2003). further explain that organisational culture affects performance from at least four different perspectives. It may drive economic efficiency, affect equity, influence overall economic and social objectives that an organisation pursues, and may encourage co-operation and relationship building. Both authors highlighted the point that it is important to pay attention to organisational culture as it has the potential to determine the success or failure of the organisation.

Organisational culture influences organisational activities, either in a positive or negative way. This is determined by how the members of the organisation attend to issues of their organisation's culture. It has been argued that culture and/or the lack thereof influences the success or failure of organisations. The culture of the organisation plays a significant role because it is the basis for ensuring that change is accepted, and the work environment is conducive for the employees

(Mangolela, 2014). Therefore, "an organisation needs to understand its status before any strategic action occurs" (Davidson, 2004). Organisational culture plays a vital role within the organisation; it is immensely importance to understand it. Kolisang (2011) also suggested that organisational culture is an important factor of organisational behaviour and performance.

Organisational culture covers a wide range of actions governing the organisation. All the activities that occur in the organisation are either new or repeated. At some point, the most successful way of implementing those activities is adopted. This implies that organisational culture is developed through organisational activities; an organisation defines their culture based on what they encounter on a daily basis. Kotter (2011) defined corporate culture in the simplest terms as the way things are done in an organisation. Mangolela (2014) stated that organisational culture affects communication links and relationships within the organisation. Organisational culture becomes one of the cornerstones of a successful organisational restructuring. A poor understanding of culture reflects in poor communication links and a lack of relationships within the organisation.

Organisational culture primarily tries to integrate employees and help them to have a collective understanding and the same goals. Mulder and Niemann-Struweg (2015:82) stated that, "organisational culture unites, distinguishes, drives, incorporates and integrates those whom form part of the organisation". This means that if the organisational culture impacts on the internal integration and adaptation to the working environment, then an understanding of and respect for the organisational culture will help the organisation acquire all it needs to achieve its daily mandate.

PERSPECTIVES OF ORGANISATIONAL CULTURE

There are three perspectives to approach organisational culture, various scholars explain them differently, and each perspective has a distinct impact. These perspectives include integration, differentiation, and fragmentation, as adopted from (Martin 2002). Firstly, the integration perspective approaches culture from an angle that focuses on consensus and a holistic understanding of everything that happens within the organisation. Smerek (2010:382) stated, the "integration perspective assumes consistency, organisation-wide consensus, and

clarity. Diverging from integration are treated as regrettable shortfalls from an integrated ideal". Ideally, the integration perspective suggests that the organisation needs consistency, agreement among all organisational members, and clarity through interactions. Failure to establish consistency, consensus, and a holistic understanding, means that integration would be poor.

Secondly, the differentiation perspective assumes that culture is manifested by differences among subunits, and that consensus only occurs in subcultures (Smerek 2010). Inversely, the differentiation perspective admits that consensus is reached within subcultures or groups that exist among the organisation. This means that, the entire organisation holds different perceptions based on their differences. The management, administrative, and external stakeholders, all have consensus when they are on their own, however, when the whole organisation needs to engage and focus on the same matter, consensus and clarity are replaced by their differences, which appear to lead the organisation.

The third perspective, fragmentation, assumes that culture can best be described by ambiguity in an organisation. Consensus from a fragmentation perspective is transient and issue-specific. Research from this perspective means that goals are unclear and there is a lack of clarity as to whether outcomes have been reached (Smerek, 2010:382). The fragmentation perspective highlights ambiguity and unclear objectives, which means that objectives have not been specified and success remains uncharted. A perspective that presents the narration of colleges and universities as

"organised anarchies" (Cohen & March, 1974). Based on fragmentation perspective, consensus is occurring frequently, such that not every topic discussed can be agreed on. Agreement is not guaranteed on every topic in organisations because fragmentation exists.

The focus of this study was to examine which perspective the GCIS uses and to discover how such a perspective affects the integration of communication in the organisation. In relation to this study, integration refers to coordination, aligning, working together, rigorous procedures for doing things within the organisation, and accepted ways of behaving within the organisation. It is important for an organisation to have an integrated system where the integration of communication entails alignment of all organisational activities, working together as an organisation, transferring a single message across the organisation.

INTEGRATED COMMUNICATION

BACKGROUND TO IC

The rationale behind IC emerged and gained importance in the early 1980s (Niemann 2005, Smith 1996). Schultz and Kitchen (2000:21) disagree and state, "that IC had its early development at the Medill School of Journalism at North Western University in the United States of America" in as early as 1921. However, integrated marketing communication focuses on the dissemination of the brand message so it is described as "a communication process that bring about the planning, integration and implementation of a range of marketing communication components" (Shimp, 2010:11). In organisations where the focus is not entirely on brand management or communication, integration of communication will be measured differently.

According to Maenetja (2009:42), IC is "the strategic management process of organisationally controlling all messages and encouraging purposeful data-driven dialogue to build and maintain long-term, profitable relationships with stakeholders". This description states that the integration of communication helps the organisation to control, regulate and manage, it creates and maintains strong relationships with stakeholders and keeps the organisation connected with all stakeholders. Thus, integration is necessary for a company to have consensus. The study investigates whether GCIS has applied integration since its development. IC is seen as

the assembly of all relevant corporate communication activities. This entails that IC combines organisational communication activities and the spread of the same communication message across the whole organisation.

Weick's theory supports the interconnectedness of individuals in an organisation, which means that the actions of individuals in an organisation can strengthen it and connect individuals. However, Van Wezel (2000) stated that organisations and the external environment co-exist interdependently, so that organisations are also affected by politics, culture and technology. Organisations must manage interdependence, failure to do so can result in the decline of the interdependence of subsystems and perhaps the demise of the organisation. Organisations need to connect to the outside world in order to survive. Attention should be given to other issues such as politics, culture, economy, technology, legislation, and most importantly the environment.

In summary, organisational change is necessary, without it environmental conditions will affect innovation, so that the organisation will find itself no longer competitive in an increasingly complex and technologically sophisticated economy (Van Wezel, 2000). Implementing IC is considered a great step towards innovation, and it is important to organisational success. Innovative ideas and directions are established during innovation and most importantly; all parts of the organisation work together [integrate] to achieve the same objective at the same time. This will increase the effectiveness of the organisation.

Differences within the organisation or a unit can exist but need not affect the integration of communication within the whole unit. Niemann (2005) stated that IC focuses on two-way communication, the strategic objective of the organisation directs communication and IC contributes to the strategic thinking process of the overall of the organisation. Integration of communication should support the organisation's mission, vision, goals, and strategic intent.

Integration should be attempted once the organisation knows its status. It is advised that an organisation should examine and understand their development, especially concerning how change can affect it. It is then expected to have sub-systems within the organisation but most importantly, they should not supersede the main culture of the whole unit or system. Hence, integration, coordination, and harmonisation of all forms of communication in any organisation is important, it unifies the organisation into a whole. Integration of communication is important, and it is a requirement for organisational success and effective communication overall (Martin and NiemannStruweg 2015).

Organisations can work together for certain activities and disband during other activities. Hence, Barker and Angelopulo (2006) stated that organisations should be discreet units that conduct interorganisational relations for exchange. Organisations are systems that need to have boundaries by which employees remain behind their borders so that management can limit joint decision-making and remain in power or control. This emphasises a less efficient working environment and could lead to poor communication.

Integration in organisations begins with top management. Schultz and Kitchen (2000) stated, "all communication activities need to be integrated for business to survive and prosper in a globalised world". Hence, organisations need to be integrated, starting with the integration of employees, and continuing to build a solid relationship with both their internal and external stakeholders. The communication of such an organisation will be effective and the more the messages are integrated the greater the impact they have on recipients.

Christensen and Cheney (2005) argued that IC might lead to the despondence of employees who are assigned to work for organisational objectives especially if the organisational values have little meaning to employees. Building relationships with employees will create a sense of importance, and they will have a positive attitude towards IC. IC is focused on corporate identity and brand, that is what the organisation is, and represents (Du Plessis and Schoonraad, 2006). For Christensen and Cheney (2005) IC is consistently conceived of as a

broader effort to consolidate communication processes, beyond the field of marketing. To date the distinction between IC and integrated marketing communication has not been clearly understood.

AREAS OF INTEGRATION

In implementing IC, the top management team or executive committee of the organisation should suggest and more importantly support the idea. Every organisation relies on commitment of the senior employees to succeed. Mulder and Niemann-Struweg (2015) also support the idea that the integration of communication should start at top management. Table 1 below describes how integration of communication occurs in any organisation.

TABLE 1

THE THREE AREAS OF INTEGRATION

Organisational integration	Stakeholder integration	Environmental integration
CEO/ top management integration	Interactivity integration	Open system
The renaissance communicator	Brand contact point integration	Learning organisation

Mulder and Niemann-Struweg (2015).

The organisation is the first place where integration occurs. Most importantly, integration is either horizontal or vertical. The long-term strategic direction of the organisation should drive the organisational integration. Horizontal integration involves integration and alignment across business units, functions, and regions related to systems (particularly environment), communication and procedures (Mulder and Niemann-Struweg, 2015). Linking knowledge and expertise between departments is essential, and it is the vital start of integration. Vertical integration relies on communication integration between people working in different business units, and departments. It encourages communication that is more open, frequent and effective. Vertical integration encourages top-down communication from top management.

Integration from top-management level enables the organisation to integrate with support from the management. Top management integration creates a sense of the importance of communication within the organisation. Management regularly check the integration progress and its alignment with the organisational mission and goals. Top management should create an awareness of communication within the organisation and support the long-term organisational strategic plan.

For an organisation to achieve integration proactively, Mulder and Niemann-Struweg (2015) suggest that it at least requires enough capital to ensure effectiveness, knowledge and comprehension of core competencies, strategic consistency in all organisational effort, inherent cross-functional planning, and zero-based communication and marketing planning. This means that, to succeed, integration requires support from all stakeholders of the organisation and all employees as well.

STAKEHOLDER INTEGRATION AREA

Organisations need to realise that all stakeholders are equally important. Relationships with stakeholders are important for effective interaction. Stakeholders' involvement is vital and

should be promoted. Interactivity, integration, and brand contact point integration are required for this type of integration.

Interactivity integration entails that productive and effective communication is strongly encouraged. Communication should be two-way (symmetrical) communication, purposeful and personalised. Two-way symmetrical communication emphasises that communication should be fair and partial between parties, it should be viewed and mutually understood (Mulder and Niemann-Struweg 2015:221). Communication should be effective, most importantly purposeful and have a target audience. Purposeful dialogue among stakeholders and the organisation is essential for integration and relationship building.

Within the stakeholder integration area, brand contact point integration is another step towards integrating the whole organisation, which demonstrates that stakeholder involvement is a necessity. Mulder and Niemann-Struweg (2015) explain that stakeholders need to be classified and differentiated, based on their potential impact on the organisation. Influential stakeholders (internal and external) are important to consider during communication integration. It is essential to identify and understand potential stakeholders for communication integration, and they should be a priority of the organisation.

ENVIRONMENTAL INTEGRATION

Lastly, integration with the environment determines what will happen to the organisation. The environment and the organisation continuously interact and changes take place, due to environmental forces. The organisation functions as an open system. Politics, social factors, and economy are the environmental factors with more influence on organisational change. Environmental change is constant and encourages organisations to continuously learn and innovate to prosper. Constant interaction between the environment and the organisation is vital for the long-term survival and sustainability of the organisation.

An evolutionary model of integration by Duncan and Cawood (1996), encourages a “silo focus”, which is vital for integration to occur. In summary, not all areas that need to be involved can be integrated at once; it is encouraged to focus on one area of integration at time. Environmental, organisational and stakeholder integration areas are all-important and should be integrated from top management point of view with support from all organisational units or departments. It is important for the organisation to unite and have effective internal communication. Moreover, they need to build relationships among employees to be able to communicate the same message by means of their external communication.

METHODOLOGY

SAMPLING PROCEDURE

The study targeted the population of all GCIS employees in the Polokwane Branch. The organisation has less than 15 employees, for yielding great results the study had to include all the population. The second data set population composed of organisational documents including only reports and the study deployed a purposeful sampling to choose documents favourable to contain the necessary information needed to provide relevant conclusions to the study.

COMPOSITION OF SAMPLE

The study consisted of two data sets of individual participants and organisational documents. Out of all employees of the GCIS only 7 participated, 3 have denied to take part, and one was not invited to form part of the study. Sample of organisational documents included the Comtask report which had the recommendations which included the development of GCIS and

mandates it had to achieve, first annual report of the GCIS and the latest available at the time of conducting the study which was 2016/2017 annual report.

FINDINGS AND DISCUSSION

Integration of communication can be achieved on three levels within an organisation, namely organisational, stakeholder and environmental integration. The GCIS is an organisation involved with various sectors of government to serve the public. Contrary to that it also serves the requests of the public through the same platforms of performing government duties. Thus, it is designed to operate as a two-way communications organisation for both government and the public.

With relation to organisational area of integration, the GCIS has an internal system of communication. This system is designed to facilitate internal communication across the organisation through a top-down approach and facilitates two-way communication on certain occasions. The employees of the organisation at Polokwane understand that the purpose of their branch is to receive communication from top offices consisting of mandates to implement within a given period and submit reports over a given period. Further, their understanding of integrated communication refers to a synchronised communication system that includes a mix of all communication platforms to transfer a message. Among other things, the view is wrong as it is confused with integrated marketing communication (IMC).

The organisation applies top down communication approach to communication. This approach promotes equivocality of information as the organisation is overloaded with information to work with. Therefore, this results in limited opportunity for learning on latest development to impact on the organisation. Hence organisational integration model on internal communication (intranet) is only seen as a top-down communication tool. However, the internal system was designed to create foster convenient sharing of information, two-way communication between employees across the GCIS nationwide, and lastly to integrate various sections of the GCIS and coordinate implementations of mandates. Hence, the system should be a system of integration for the organisational area of integration. Thus, integration of communication refers to a holistic approach of merging various systems of the organisations for effective implementation of organisational activities.

Contrary to the views of the participants, the documents of the organisation and the Comtask report of the GCIS have their views of integrated communication. The second area of integration is stakeholder, this comprises of all public and private organisations that the organisation works with. This was found to be the same as the third area of environmental integration. Thus, their discussion is seen as one, hence the employees of the GCIS practice both environmental and stakeholder as one. Though as per the documents, they are two different concepts.

The third and last area of integration is environment. This section speaks to the public which are the main priority of the GCIS as its mandate cuts across disseminating information to and from the public and providing access of information. The process of integration between these spectrums reflects on the possibilities of a two-way communication, inclusiveness of the public on issues occurring within their geographical area, and provision of access to information by the GCIS. "In relation to the environmental area of integration, we work directly with local municipalities, community development workers; ward councillors and committees, extension officers in agriculture, as we are agent of change using the development communication method of information dissemination through information sessions, dialogues, Imbizo, door to door and community activations to raise awareness on government plans and programs." "Government must ensure that all information from government is provided to all people at all times. In this effort, government should also explore a two-way communication approach, as this will ensure a closer engagement. The ability to engage in two-way communication with citizens involves a complex set of interlocking structures, processes and practices, which

government has already put in place to communicate effectively with the public.” Government communicator’s handbook (2014/17:9).

This reflects on the need for government to have two way-communication which is highly documented in the organisation’s documents while poorly implemented by the GCIS in Polokwane.

Thus, their understanding of operations and mandates is applied through top-down communication approach of taking mandates. This also emphasises that their participation to decision making processes is limited. Thus, they further stated that “Organisationally is when you have a hierarchy and there is somebody who will tell or give mandate, to have information crafted so that it can be well understood in an organisation.” This speaks to the position of GCIS Polokwane employees on their involvement in decision making process.

The GCIS engages with the public through data collection and reports writing process on issues affecting the public. This provides a platform for the public to engage with the GCIS and create a dialog as the GCIS provides feedback through report and service delivery done by relevant stakeholders. Primary purpose of the GCIS in relation to the public is to communicate on service delivery of different government departments. Their integration with the public involves provision of information pre and post service deliveries. The GCIS has a wide range of platforms of sharing information from newspapers, website, radio, and television. Their distribution of information is diverse, and the organisation has developed information centres though they are few. Thus, “stakeholder integrated communication: at the GCIS through the rapid response meeting, we also have cluster support meeting based on government priorities, issues in the environment are featured across the clusters, whether health, education, rural development etc., to create cooperation. The main aim of the communication system is synergy and coherent of messaging across the 3 spheres of government, a seamless approach in dissemination of information.” The organisation has no admission reservation for the public to access their facility for services, and to access to information.

Their distribution of communicative information is broadly designed to accommodate the public.

Within the environmental area of integration, the organisation is constantly developing and ensuring consistency in service delivery. The organisation works seamless on environmental area of integration. The GCIS produces Local Environment Area Reports (LEAR) on issues affecting the communities. These reports are presented to the community and provide feedback on progress towards change. Contrary to that the GCIS holds no right over the presentation of information provided. The individual assessing the report chooses information relevant to the public and which to hold back. This process dissolves the quality of the report and misrepresents the GCIS to the public as provision of information is altered.

As majority of the views denotes that “in the environment for example when we have a mayor visiting a place, the Regional Communications Coordinator (RCC) of that community is responsible for doing the LEAR (Local Environment Assessment Report) but not communicate it, then it must be confirmed by the mayor and the community municipal officers. Primary communicator in the municipality is the mayor.” Participant 7. This act compromises the implementation of the Batho principles the organisation follows which include honesty. “Openness and transparency: the organisation should always be open with its communications, disclose all relevant information, and be accountable for its actions. Transparency demands that the department and its officials are straightforward and honest in their dealings always. Officials should provide colleagues and clients with access to accurate, relevant and timely information.” Annual report (2016/17: 17). In a sense, the practices of the organisation are not in line with the principles of the organisation. The GCIS in Polokwane functions in disarray with their organisational objectives. Further, there is little understanding of principles by the employees in lower positions as compared to those above them.

Overall, the concept of integration is poorly understood, although systems are put in place to develop and help in the manifestation of integration of communication. "There might be a thin line among what you raise here. I will say we have done very well in terms of integration as an organisational entity. That is why we still have the organisation going and its growing day by day. We are linked from municipality, local and provincial and national, so we are doing very well in terms of organisational integration." The GCIS must change their understanding of communication from topdown to two-way communication process to be effective. Further, a learning orientated attitude needs to be developed at the GCIS to facilitate continuous change and development.

"The government communication system has not yet yielded maximum impact. Factors such as the lack of knowledge and skills gap within the system are posing a greater challenge to the effective and efficient functioning of the communication system. Lack of content and insufficient knowledge of policies has in some instances compromised communication efforts." Government communicator's handbook (2014/17:12). Though the government has developed systems to help the GCIS integrate on three spheres i.e. national, provincial, and local, it is still difficult to achieve integration. Most of the employees do not understand or know the concept of integration. "Thusong service centres are one-stop integrated community development centres that enable two-way communication between citizens and government, public participation and the delivery of services." Government communication policy (2018:22).

The approach to integrated communication is not complete nor achieved, though the GCIS is significantly improving towards implementing integration. The efforts towards implementing IC is visible in the organisational documents of strategic planning. However, slowing down on the process of integration is the approach of GCIS to strategic communication, "Coordination of government action and communication in South Africa is assured in a hierarchical manner. The President is the effective chief of government; the premiers, mayors and all ministers are also part of this robust communication machinery. To ensure legitimacy and effectiveness, all government communication must have its genesis and coordination from the highest office in the government's structure." Government communicator's handbook (2014/17:34).

The top-down approach hinders integration of communication as this does not accommodate two-way communication. Precisely, the findings suggest that the GCIS documents explain integration clearly however the employees do not practice what the organisation has drafted. The organisation has no space for learning thus, there is no common understanding and knowledge of the documentation serving to guide the organisation.

CONCLUSION

The GCIS is constantly playing a vital role in keeping the public informed, and unlimited access to information. However, the development within the organisation are not as they could have been given the period of existence. There is poor understanding of their field of work, with a moderate practical implementation of mandates. The organisation often practices a top-down communication approach, which speaks to exclusion on decision making process within the organisation.

The GCIS has practiced integration without knowledge of it. This resulted in average manifestation with fleeting integration over the past 20 years. Within the three areas of integration, the GCIS has an unconscious success of implementing integration at the environmental area, and stakeholder as compared to organisational area of integration. It is necessary for the GCIS in Polokwane to constantly rework its approach to learning within the organisation, acquire employees with professional knowledge of the field of work.

It is highly recommended that the GCIS upholds the Batho Pele principles throughout their fields of services. However, it is mandatory for the GCIS to constantly refer to the Comtask report of the GCIS for affirmative actions, measure progress and development. The

organisation has nor research done on their evaluation of progress with regards to the recommendation of the Comtask report. The GCIS in Polokwane should often reflect on the recommendations that contributed to its establishment often to evaluate their success.

Contrary, organisational culture of the GCIS contributes more to the state at which integration of communication is at. Primarily this study had one objective which is to examine if the GCIS understands integrated communication. It is evident that integration of communication is poorly understood at the GCIS in Polokwane. A successful implementation of integrated communication includes understanding and successful manifestation of integrated communication across the three areas of integrated communication.

The GCIS in Polokwane has a little understanding of the concept integrated communication. Again, integration is poorly implemented within the organisational area of integration despite having a system in place to facilitate it. Within the environmental area of integration there is a significant performance and developments. The participants understand stakeholder integration as similar to environmental area of integration. The GCIS on these two areas of integration has achieved integration and continues to develop.

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Exploring the integration of complexity leadership theory and the Cynefin framework

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ABSTRACT

The business environment is changing, and the velocity of change is accelerating. Business leaders recognise the need to adjust to this new business environment. Inevitably change impacts leadership theory. To adjust to the new environment faced by leaders, complexity leadership theory (CLT) has been suggested. Leadership theory has been moving in a different direction toward accommodating the changing business environment. Increasingly business context is playing an important role and leaders need to understand the issues that they face. Hence, leaders can use the Cynefin framework which divides the environment into five sub-domains. This article uses a secondary research approach by examining and investigating various articles to illustrate how CLT and the Cynefin framework can be integrated. The systematic literature review considered a wide variety of literature and selected the seminal and most applicable articles on the various subjects. The aim of this article aims is to illustrate how leaders can use CLT to adjust to the business environment and which leadership approach under CLT will be most prominent.

Keywords: Complexity leadership theory (CLT), complex adaptive systems (CAS), complexity theory, Cynefin framework

1. INTRODUCTION

The world is changing, creating a rising need for the ability to rapidly respond to changing organisational contexts and changing business environments (Best, 2014). Applying the complexity theory school of thought provides the opportunity to view the organisation as a complex adaptive system (CAS). Simultaneously organisations can apply complexity leadership theory (CLT). CLT advocates three distinct leadership styles that work in tandem to create a balance between the operational and entrepreneurial sides of the organisation. Due to the collaborative nature of these leadership styles, CLT has the ability to adjust to any organisational context within which the organisation operates. To determine the organisation's context, the Cynefin framework can be applied. The Cynefin framework is a useful tool that can be used to determine the context in which an organisation operates. With the Cynefin framework, it is possible to sort the organisational context into one of five domains. Once the context of the organisation is understood, the leadership approach can be adjusted to suit the organisation's current context. Accordingly, this article aim to illustrate the outcome of how the integration of CLT and Cynefin framework supports the three leadership approaches supported by CLT.

2. COMPLEXITY LEADERSHIP THEORY (CLT) AND CYNEFIN IN PERSPECTIVE

Complexity leadership theory incorporates elements from complexity theory and is situated within the CAS framework. Furthermore, the unit of analysis for CLT is CAS. It is imperative that the interconnection between these three concepts should be clarified. The five sub-domains of the Cynefin framework play a role in which of the three-leadership approach incorporated in CLT will be most prominent.

2.1 Complexity theory

Complexity theory allows organisations to see and perceive different aspects to the organisation's context and through the emergence process and synergies the organisation can adjust organically to change (Marion & Uhl-Bien, 2001). The business environment that organisations operate in is changing. The challenges that organisations are facing have become increasingly centred around rapidly responding to new problems by collecting new information and developing new solutions (Best, 2014).

Three primary drivers have been identified in support of the need for a paradigm shift to complexity theory. The first driver is changing societal mandates. Within organisations, major changes are occurring in the form of business process reengineering, innovation, and global and local environmental changes (DeMattos, Miller & Park, 2012). Higgs (2003) stated that the changing environment has also necessitated a change in work values. These changing social mandates manifest as complex challenges that require new knowledge, resources, and external perspectives (Martin & Ernst, 2005). Moreover, these complex challenges may defy many of the existing solutions of the organisation (Martin & Ernst, 2005).

The second driver is identified as organisational change. According to Mosley & Patrick (2011) organisations need to acknowledge market changes and respond appropriately. In turn, changes require organisations to deal with compounding complexities and more complex challenges (Higgs, 2003; Martin & Ernst, 2005). For this reason, organisations cannot be leery of change, they must thrive on it (Best, 2014).

The information revolution is the third driver. According to (DeMattos et al., 2012) the world is experiencing an information revolution, where change is constant (Morrison, 2010). In a knowledge economy, this translates to the phenomenon that the price of generating new knowledge is declining and the productivity of generating information is increasing (DeMattos et al., 2012).

Taking these drivers into consideration it can be argued that a paradigm shift is required in complexity theory (Marion & Uhl-Bien, 2001). The paradigm shift will be from a linear mechanical view to a view of uncertainty and unpredictability (Uhl-Bien, Marion & McKelvey, 2007). Bento (2018) argued that instead of the focus being on control management it should rather be on facilitating behaviour variation. Thus, a complexity-informed paradigm. Organisations that strive to match the complexity of their environments realise that a vast combination of solutions and practices is required (Bento, 2018). The complexity of the business environment requires allowing for variation that facilitates the emergence of new solutions and practices to ensure that organisations can accommodate their everchanging environments (Bento, 2018).

With a clear understanding of what constitutes a complex context, complexity theory offers several characteristics. Complexity theory consists of the following seven characteristics namely – a large number of elements, dynamic interactions, an open system, a history, behaviour and interactions, far from equilibrium, and adaptability.

First, a complex system requires the presence of a large number of individuals (Cilliers, 2000; DeToni & de Zan, 2016). It is composed of diverse individuals that continuously send and receive signals/information, and, in turn, affect one another, creating novel behaviour within the system (Uhl-Bien et al., 2007). Second, dynamic interactions must occur for the system to

be considered complex (Cilliers, 1998). Interaction between individuals takes the form of knowledge transfer and is rich in nature. Each individual has the ability to influence multiple other individuals in their environment through these interactions (Cilliers, 1998). Non-linearity of interactions signifies that small changes can have large effects and that large changes can merely have small effects (Cilliers, 1998). Interactions within the system also cause feedback loops that can in some instances feedback onto itself (Cilliers, 1998).

Third, a complex system is an open system (Cilliers, 2000, 2002, 2016; Morrison, 2010). Complexity theory however does not assume that all systems are open systems (Schneider & Somers, 2006). Fourth, a complex system has a history. The history of the organisation will influence and affect changes within the organisation (Cilliers, 2000). Fifth, the behaviour of the system is determined by the interactions within the system (Cilliers, 2000). In a complex system, each individual only reacts to the information locally and is ignorant of the behaviour of the entire system (Uhl-Bien & Arena, 2018). Sixth, a complex system operates far from equilibrium in a state of constant movement (Cilliers, 2000). The complex system between predictability and chaos (Morrison, 2010). If a system is pushed to the edge of chaos, the system has maximised creativity (Chan, 2001).

Seven, a complex system is adaptive (Morrison, 2010). It responds to feedback or information gleaned from emerging operating conditions that resulted from the choices made (Trinh & Castillo, 2020). The quality of adaptiveness is important as it allows the system to respond to change and even thrive, despite some of the elements potentially being brittle and nonadaptive (Grisogono & Ryan, 2003). Adaptability ensures that the system can organise and reorganise its internal structures without the influence of an external individual (Cilliers, 2000). This quality of reorganisation is known as self-organisation (Cilliers, 1998).

Is it important that organisations acknowledge this characteristic of complexity theory since it is the building blocks for CAS and CLT (Uhl-Bien et al., 2007).

2.2 Complex adaptive systems

A complex adaptive system crosses traditional disciplinary boundaries (Bar-Yam, 1997). CAS has been applied in physics, biology, and social sciences (Bar-Yam, 1997; Patil & Patil, 2020; Siegenfeld & Bar-Yam, 2020). CAS focuses on the relationships of the interactions and the various components in the system and the interaction of components with one another (Siegenfeld & Bar-Yam, 2020). CAS shares general properties with complexity theory (Chan, 2001). The CAS continuously and deliberately interacts with the environment importing energy into the organisation (Wollmann & Steiner, 2017). Simultaneously the elements within the system interact in a continuous manner creating an extensive network within the organisation (Wollmann & Steiner, 2017). Complexity theory and CAS illustrates a different way of perceiving change within the current environment. To accommodate the changing environment and the knowledge era, CLT was suggested as a possible leadership approach.

2.3 Complex leadership theory

Complex leadership theory draws from complexity theory (Lichtenstein, Uhl-Bien, Marion, Seers, Orton & Schreiber, 2006; Uhl-Bien et al., 2007; Clarke, 2013) and is considered within the CAS framework (Lichtenstein et al., 2006; Olalere, 2015). Moreover, the unit of analysis for CLT is the CAS itself (Gilbert, Shrieves & Yearworth, 2016).

Complex leadership theory is unique as it does not strive to eliminate chaos and reduce uncertainty, but instead, CLT thrives on chaos and absorbs the uncertainty (Khan, Vandermorris, Shepherd, Begun, Lanham, Uhl-Bien & Berta, 2018). CLT differs from traditional leadership in four distinct ways. Firstly, CLT assumes that the organisation and the leaders

are a product of interactive, informal dynamics that are embedded within the organisation that emerges from CAS (Clarke, 2013).

Secondly, in CLT, the organisation benefits from indirect leadership that moves away from hierarchies and towards top-down control (Marion & Uhl-Bien, 2003). Within CLT the leader cannot control CAS or how the complex parts of CAS operate (Mumford & Higgs, 2019). The leader can only influence the process at various levels through indirect methods (Mumford & Higgs, 2019).

Thirdly, under CLT, leadership is embedded in the informal structure of the organisation (Marion & Uhl-Bien, 2003). Anyone can partake as a follower or a leader depending on the context (Lichtenstein et al., 2006). Lastly, CLT influences the system by creating and enabling distributed intelligence (Marion & Uhl-Bien, 2003).

It is evident that CLT differs from traditional leadership. It consists of three different leadership approaches that operate in the three different systems within the organisation. Firstly, operational leadership functions in the operational system; Secondly, enabling leadership operates in the adaptive space; and thirdly, adaptive leadership functions in the entrepreneurial system.

Operational leadership addresses the bureaucratic structure within the organisation (Uhl-Bien & Marion, 2009). An operational leader possesses authority and position, hence, operational leaders have decision-making power (Uhl-Bien et al., 2007). The outcomes of operational leadership amongst others are role clarity, consistency, efficiency, and helping individuals to understand their task requirements (Hazy & Uhl-Bien, 2015; Murphy et al., 2017). Although operational leaders are situated in the bureaucratic structure of the organisation, operational leadership under CLT bolsters adaptive leadership and enabling leadership instead of hindering these leadership actions (Uhl-Bien & Arena, 2017).

Adaptive leadership focuses on the informal interactions between the individuals that influence local behaviour, emergents and complexity within CAS to adjust to tension (Uhl-Bien et al., 2007; Uhl-Bien, Marion & McKelvey, 2011; Murphy et al., 2017), that stems from conflicting ideas, technology, and alliances of individuals (Uhl-Bien et al., 2007). Additionally, it is important to note that adaptive leadership can occur anywhere and does not require acts from authority (Uhl-Bien et al., 2007). The result is emergence, creativity, learning, and adaptability at all levels of the system and with multiple scales of importance (Uhl-Bien et al., 2007). Hazy & Uhl-Bien (2015) added that if adaptive leadership is implemented within the organisation, the outcomes include autonomy, experimentation, and adaption.

Enabling leadership operates in the adaptive space. Enabling leadership can occur anywhere and be carried out by anyone in the organisation (Uhl-Bien et al., 2007). An enabling leader recognises the need for both operational and adaptive leadership in the organisation (Uhl-Bien et al., 2007).

Especially as Arena & Uhl-bien (2016) discovered that conflict is key to innovation and adaptability.

Enabling leadership goals are two-fold. It enables effective CAS dynamics and manages the entanglement between operational and adaptive leadership.

Enabling leadership focuses on enabling adaptive leadership, but at the same time operational leadership must be tailored for the leadership approaches to function in tandem (Uhl-Bien et al., 2007). This leadership function assists the organisation in being adaptive in complexity (Uhl-Bien & Arena, 2017). Enabling leadership helps the organisation to operate as CAS. It enables effective CAS dynamics by fostering enabling conditions that catalyse adaptive leadership and allow for emergence.

Additionally, enabling leadership manages the entanglement between operational leadership and adaptive leadership (Uhl-Bien et al., 2007). Managing the entanglement refers to the rhythm between hierarchical dynamics as emergent CAS dynamics (Uhl-Bien et al., 2007). To manage the entanglement, two aspects have to be addressed – managing organisational conditions in which adaptive leadership exists and helping disseminate innovation and the flow of knowledge to the formal system (i.e. innovation-to-organisation interface) (Dougherty & Hardy, 1996; Uhl-Bien et al., 2007).

2.4 Cynefin framework

Cynefin framework is a Welsh word which means multiple factors within the environment and experiences that influence individuals in ways that can never be understood (Snowden & Boone, 2007). The Cynefin framework was developed to understand organisational knowledge exchange, decision-making, strategy, and policymaking that incorporates perspectives of complexity theory (Fitch, 2009).

The Cynefin framework consists of two large domains – the ordered and unordered domains (O'Connor & Lepmets, 2015). No one domain is more desirable than the other (Snowden, 2002; Kurtz & Snowden, 2003). Within the two domains, four distinct sub-domains can be found. Within the ordered domain, lies the simple sub-domain and the complicated sub-domain (Snowden & Boone, 2007). In the unordered domain, the complex sub-domain and the chaos sub-domain can be found (Snowden & Boone, 2007). The Cynefin framework also contains a fifth domain named the disorder sub-domain (Snowden & Boone, 2007). (Snowden & Boone, 2007). Snowden stated that the fifth domain should be avoided at all costs (Snowden, 2000).

The context of the Cynefin framework is sorted into one of the five sub-domains based on the cause-and-effect relationship (Snowden & Boone, 2007). However, the sub-domains should not be considered as a rigid categorisation (French, 2015). As a context moves closer to the border between two sub-domains, the context can possess characteristics from both sub-domains (French, 2015). Each of the sub-domains can be identified as follows:

The simple sub-domain is characterised by a clear cause-and-effect relationship which can be described as linear, predictable, relatable, empirical, and agreed upon (Snowden, 2002). The answers to problems in the simple sub-domain are self-evident and undisputed between leaders and individuals (Snowden & Boone, 2007). Best practices are used in this sub-domain (Snowden & Boone, 2007).

The complicated sub-domain has multiple correct answers (Snowden & Boone, 2007). The complicated sub-domain has a clear cause-and-effect but only a few leaders and/or individuals can discern the pattern (Snowden & Boone, 2007).

In the complex sub-domain, the correct answer must be uncovered (Snowden & Boone, 2007). The complex sub-domain has a large number of patterns and trying to classify the patterns may defy any attempts to do so (Puik & Ceglarek, 2015). Hence, cause-and-effect relationships can only be seen in hindsight (Puik & Ceglarek, 2015).

In the chaos domain, there are no discernible patterns (Mark & Snowden, 2006). Searching for the right answer in this sub-domain will prove fruitless as the cause-and-effect relationship does not exist or is continuously shifting (Snowden & Boone, 2007).

The disorder sub-domain will only apply when the context does not show any predominant characteristics from the other four sub-domains (Snowden & Boone, 2007). If a context is classified as disordered the leader should immediately attempt to move the context to one of the other subdomains (Kurtz & Snowden, 2003; O'Connor & Lepmets, 2015).

3. METHODOLOGY

This research article uses secondary research as the methodology. With the advancement of technology, vast amounts of information are available to use in research (Johnston, 2014). Secondary analysis is more flexible in nature but remains a systematic evaluation method used to analyse data (Johnston, 2014). Firstly, a systematic search was undertaken to investigate what is already known, and what remains to be learned. A multitude of articles from a wide variety of sources were selected in the initial search for articles for each of the applicable theories. Once a complete understanding was gained a systematic search was used to identify the appropriate data set. The main articles selected for this paper stem from seminal authors in their respective theories. Beyond the seminal articles, papers were selected based on their applicability to this paper. Various articles were not incorporated in this paper as the focus was not on complexity leadership theory and the Cynefin. For this study literature from prominent authors in the field was used to investigate the various theories and how the theories can be integrated. Articles from Uhl-Bien, Arena, McKlevley, Cilliers and Snowden were used during the investigation of the integration of CLT and the Cynefin framework. In accordance with quality assurance, every step was taken to ensure that the findings meet the measures for credibility, dependability, confirmability, transferability and authenticity as set out by Guba & Lincoln (1994). During the process of investigating and exploring CLT and the Cynefin framework, it was realised that there is a gap in the literature integrating them. Thus, the aim of this study is to illustrate how the Cynefin framework and CLT can be integrated.

4. INTEGRATION OF CLT AND THE CYNEFIN FRAMEWORK

Complex leadership theory is built on complexity theory and operates in CAS. With the changing environment, it is argued that the environment and the organisation can both be considered as CAS. Therefore, even though the current context according to the Cynefin framework is not classified as complex, CLT can still be applied as long as the larger CAS dynamic is present. Since CLT is an entangled leadership theory, the balance between the three leadership styles can organically adjust to the context faced. Depending on the context, CLT can either emphasise operational leadership or adaptive leadership. Hence, CLT can adjust to emphasis the leadership most appropriate for the context in which the organisation is operating according to the Cynefin framework. Figure 1.1 illustrates the combination of the five sub-domains and theories explored.

Figure 1: CLT merged with the Cynefin framework

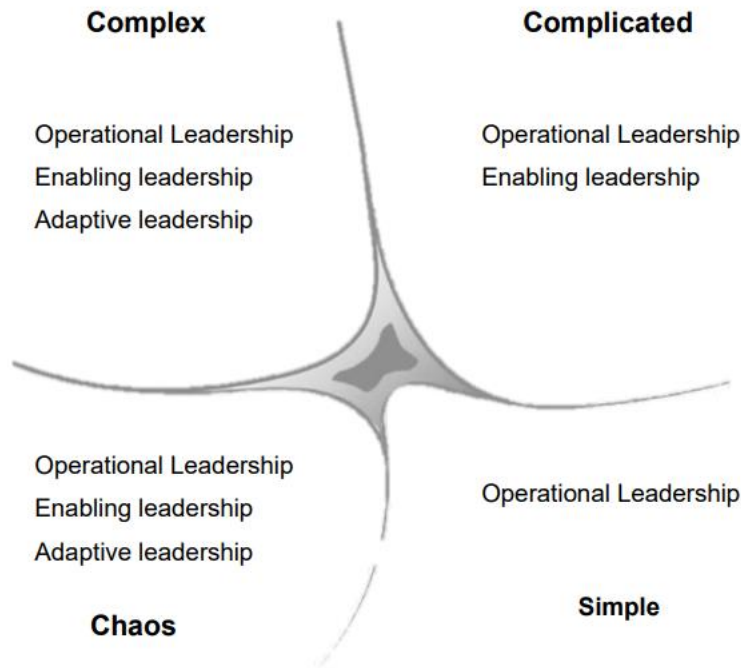


Figure 1 illustrates that operational leadership would be the prominent leadership approach emphasised in the simple sub-domain. Uhl-Bien et al., (2007) stated that there are certain times and conditions where hierarchical authority should be emphasised. According to the Cynefin framework, the simple sub-domains cause-and-effect relationship is known, hence the problems faced within the simple sub-domain are known. Thus, operational leadership is most prominent.

The complicated sub-domain according to the Cynefin framework is a sub-domain of the larger order domain (Snowden & Boone, 2007). Therefore, in accordance with Snowden & Boone (2007) and Uhl-Bien et al., (2007) the complicated sub-domain is a stable domain where rationalisation and coordination should be emphasised. In the complicated sub-domain, a balance between the three leadership styles can be found. Operational leadership will be used predominantly. Enabling leadership can feature as in some instances experts will be used. In this sub-domain enabling leadership facilitates information absorption within the organisation.

The complex sub-domain falls in the larger unordered domain (Snowden & Boone, 2007), where the environment is more volatile (Uhl-Bien et al., 2007). Therefore, Uhl-Bien et al., (2007) suggest emphasising complexity theory and CAS. All three of the leadership approaches are applied in the complex sub-domain. Success in this domain requires that an organisation has to develop a balancing act between the three leadership approaches.

Figure 1 demonstrates that in the chaos sub-domain, all three of the leadership styles will be present. Within the chaos sub-domain the environment is unpredictable and competitors' flexibility may threatening to the organisational survival (Uhl-Bien et al., 2007). Therefore, leaders would focus on complexity theory and CAS (Uhl-Bien et al., 2007). In the chaos sub-domain operational leadership works towards moving the context into the complex domain where patterns can be established, while adaptive leadership will work on creating innovations and new solutions.

In the disorder sub-domain operational leadership will be most prominent. Snowden & Boon (2007) state that an organisation would try and move from the disorder domain a quick as possible, hence hierarchical authority would be most present. In accordance with the Cynefin

framework, the disordered domain is undesirable, and leaders would take immediate action to move the context to the chaos or complex sub-domain.

Figure 1 served to illustrate that CLT can be used across all five of the Cynefin framework as long as the CAS dynamics are present. Furthermore, it was illustrated that depending on the context, CLT can adjust to emphasise either operational or adaptive leadership. In adjusting the balance of CLT to fit the context, enabling leadership will play a prominent role in adjusting the three leaderships to the context.

Although CLT can be integrated with the Cynefin frame to understand which leadership styles could offer an advantage in a specific scenario, there are challenges attributed to each sub-domain. The main challenge of the Simple sub-domain is to transfer principles and solutions efficiently to individual scenarios (Czinki & Hentschel, 2016) while the Complicated sub-domain needs to address the identification of crucial interactions within the environment (Czinki & Hentschel, 2016). The challenge faced by the Complex sub-domain is the high number of unknown interdependencies in the system and between the systems and its environment (Czinki & Hentschel, 2016). The Chaos sub-domain's main challenge is the dynamics in the environment, coupled with turbulence (Czinki & Hentschel, 2016).

Considering that each sub-domain requires and applies different leadership styles danger signs should be considered. In the Simple sub-domain, it is easy to be complacent and not challenge existing knowledge relevant to new problems (Snowden & Boone, 2007). Within the Complicated sub-domain analysis paralysis may occur, thus ignoring the viewpoints of non-experts (Snowden & Boone, 2007). Adaptive and Enabling leadership is evident in the Complex sub-domain. However, leaders might revert to Operational leadership if progress is not shown (Snowden & Boone, 2007). A danger sign in the Chaos sub-domain is the prolonged implementation of the command-and-control leadership style, resulting in missed opportunities (Snowden & Boone, 2007).

4. CONCLUSION

This article showcased the integration of CLT and the Cynefin Framework. Such integration enables an organisation to adjust to the business environment identified by the Cynefin framework. Employing complexity theory, CAS and CLT the appropriate trade-off between operational leadership, adaptive leadership and enabling leadership becomes evident. Complexity leadership theory demonstrates the balance required in each context due to enabling leadership allowing the balance to change according to the environment and the business context. Even though the balance between the different leadership styles occurs spontaneously, leaders should be vigilant to challenges and danger signs. When the balance is found the outcomes are impressive. The question remains of how leaders know when the balance has been found. Perhaps more importantly: "How can leaders determine which leadership style should be emphasised more to obtain the balance? "

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Artificial intelligence in managerial decision-making: a comprehensive bibliometric analysis, thematic mapping, and regional representation from 1989 to 2023

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ABSTRACT

This study investigates the international landscape of Artificial Intelligence (AI) research with a particular focus on managerial decision-making. The analysis spans the period from 1989 to 2023 and utilizes bibliometric data to explore keyword usage, thematic evolution, country collaboration, and citation frequency. Our findings highlight significant regional disparities in AI research participation, particularly the notable absence of Africa in this domain. Moreover, the study suggests that this lack of representation could result in culturally biased AI systems and the potential suppression of African cultural perspectives in the professional sphere. These findings underline the need for increased efforts to incorporate diverse cultural perspectives, specifically African, in AI research and development. This study ultimately provides insights for future efforts towards global and culturally inclusive AI development.

INTRODUCTION

Artificial Intelligence (AI) is a concept where a machine has the ability to think, learn, and imitate intelligent human behavior (Awasthi & Sangle, 2013). AI technology has been a subject of discourse for decades, often depicted in science fiction films or debates about intelligent machines taking over the world. However, AI is now an integral component of the business model of many organizations and a key strategic element in various sectors, including business, medicine, and governments on a global scale (Chatterjee et al., 2019).

A pivotal application of AI is observed in managerial decision-making (Kitsios & Kamariotou, 2021; Leyer & Schneider, 2021). Herein, AI's capacity to process vast amounts of data and generate insights significantly outstrips human capabilities, leading to more informed and effective decisions (Carlsson, 2018; Hutchinson, 2021; Kitsios & Kamariotou, 2021; Leyer & Schneider, 2021). However, the intersection of AI and managerial decision-making is not without its share of ethical considerations. Issues such as privacy, fairness, transparency, accountability, and the impact on human employment form the crux of debates surrounding the deployment of AI in decision-making contexts (Dwivedi et al., 2021; Jarrahi et al., 2021).

The author therefore argues that the decisions made through the utilization of AI in managerial contexts can have a consequential effect on employees, potentially impeding the cultivation of creative thought within the workplace. This implies that localized issues may be approached and resolved through a lens that lacks compatibility with specific local conditions. Consequently, there exists a possibility of inadvertently imposing an overarching American perspective on individuals worldwide, effectively colonizing their cognitive frameworks (Dwivedi et al., 2021; Kitsios & Kamariotou, 2021; La Torre et al., 2023).

Despite the transformative role of AI in managerial decision-making, a comprehensive bibliometric analysis tracking the evolution and impact of the relevant literature in this sphere is necessary to verify the main direction of research and core influences on the development of AI.

RQ1: What are the trends and evolutionary shifts in AI and managerial decision-making research publications and citations from 1989 to 2023?

RQ2: Which sources have been the most prolific and influential contributors in the sphere of AI in managerial decision-making research?

RQ3: Which are the pivotal papers that have made a significant impact on the evolution of AI in managerial decision-making research?

RQ4: What dominant themes, concepts, and topics emerge in relation to the application of AI in managerial decision-making?

RQ5: How is the intellectual structure within the field of AI and managerial decision-making research characterized?

RQ6: How is international collaboration structured in the research focused on AI implications in managerial decision-making?

RQ7: How is regional representation manifested in the field of AI and managerial decision-making research, specifically focusing on the underrepresentation of Africa?

By addressing these questions, the aim is to provide a comprehensive overview of the literature and key contributing factors in the field of AI's implications in managerial decision-making to assist in identifying directions of research and identify strategic research collaborations.

BRIEF LITERATURE REVIEW ON AI AND MANAGERIAL DECISION MAKING

The importance and relevance of AI in today's world are evident in its transformative potential for augmenting and potentially replacing human tasks and activities within a wide range of industrial, intellectual, and social applications. The pace of change for this new AI technological age is staggering, with new breakthroughs in algorithmic machine learning and autonomous decisionmaking, engendering new opportunities for continued innovation (Chatterjee et al., 2019).

Industries such as finance, healthcare, manufacturing, retail, supply chain, logistics, and utilities are all potentially disrupted by the onset of AI (Chatterjee et al., 2019). The intersection of Big Data collection and AI creates a machine learning space that is unique in the realm of human existence, with AI systems like Siri and Alexa becoming increasingly prevalent in our daily lives (Chatterjee et al., 2019).

Artificial Intelligence (AI) is a concept where a machine has the ability to think, learn, and imitate intelligent human behavior (Awasthi & Sangle, 2013). The origins of AI can be traced back to the 1950s, with Alan Turing's investigation of the potential for machines to think (Turing, 1950). AI as a discipline was initiated in 1956 with the Dartmouth Summer Research Project on Artificial Intelligence (Moor, 2006). Since then, the exponential increase in computational power combined with the availability of large quantities of data has ignited the contemporary surge in interest for AI (Russel & Norvig, 2010).

To date, no machine has passed the Turing test, which evaluates a machine's ability to exhibit intelligent behavior equivalent to, or indistinguishable from, that of a human (Turing, 1950). However, AI, machine learning, and algorithms have progressively permeated the social sciences and humanities scholarship (Calo, 2017; Cath et al., 2018; Crawford & Calo, 2016; Kitchin, 2017). Key breakthroughs in AI research include the development of deep learning,

reinforcement learning, and transfer learning (Lee, 2018). These advancements have led to AI applications being found in organizations across various sectors, such as chatbots, CRM systems, and AI integration (Desouza et al., 2020).

Ethical concerns, such as privacy, fairness, and transparency, are highly important in the context of AI and managerial decision-making, according to existing literature. Intel Corporation's white paper on Public Policy opportunities in AI highlights privacy, accountability, fairness, and human employment as key areas of concern for AI policy (Intel, 2017). Germany has identified transparency, privacy, and ethics as three critical challenges for AI development and adoption (Harhoff et al., 2018). The British Standards Institute's draft proposal on "Information Technology–Artificial Intelligence–Risk Management Standards" lists transparency, verifiability, controllability, explainability, robustness, resiliency, reliability, accuracy, safety, security, and privacy as important parameters for certification (BSI, 2019). The Asilomar AI principles emphasize safety, failure transparency, judicial transparency, responsibility, value alignment, human values, and personal privacy as crucial aspects (Felzmann et al., 2019).

Duan et al. (2019) discussed that ethical and legal issues are major challenges of AI-enabled services. These concerns are essential to address in order to build trust in AI systems and ensure responsible decision-making in organizations. Therefore, ethical concerns, including privacy, fairness, and transparency, are of significant importance in the context of AI and managerial decision-making.

RESEARCH METHODOLOGY: A BIBLIOMETRIC ANALYSIS

The bibliometric analysis conducted for this research study utilized bibliographic data collected from the Clarivate Web of Science database. Our search criteria were comprehensive, utilizing an extensive array of terms relevant to the study of AI in the context of managerial decision-making. The specific search query employed was as follows:

(TS=("AI" OR "Artificial Intelligence" OR "Machine Intelligence" OR "Cognitive Computing" OR "Intelligent Systems" OR "Smart Systems") AND TS=("decision" OR "choice" OR "selection" OR "judgment" OR "determination" OR "resolution") AND TS=("business" OR "organizational" OR "enterprise" OR "corporate" OR "commercial") AND TS=("management" OR "strategic management" OR "managerial decision-making" OR "operational management" OR "executive decision-making"))

The search was conducted on 15 May 2023 and initially yielded 574 documents. To ensure the relevance and validity of our dataset, we performed several refining steps. These included filtering out irrelevant topics that emerged from the initial search, leading to the exclusion of 30 unrelated articles. Furthermore, we excluded review articles as they do not introduce new primary research and might have introduced bias into our analysis. The filter was therefore set to include only Articles, Early Access, and Proceeding Papers.

These steps resulted in a final dataset of 544 documents. This dataset was then exported in raw text format for subsequent bibliometric analysis using the Bibliometrix R 4.1.1 package, known for its robust data visualization, importing, and exporting capabilities (Aria & Cuccurullo, 2017). These documents were then imported into Bibliometrix using the web interface (Moral-Muñoz et al., 2020).

This structured and meticulous approach to data collection and preparation ensures the reliability and robustness of our subsequent bibliometric analysis. Furthermore, this broad and extensive approach provides a comprehensive insight into the implications of AI in the field of managerial decision-making across different periods, languages, and research types (Aria & Cuccurullo, 2017).

The data analysis for this bibliometric study was executed on two levels to comprehensively answer the proposed research questions. The first level involved a performance analysis, which served to highlight the publication and citation patterns within the research field of AI implications in managerial decision-making. It also aimed to identify the most productive sources, relevant countries, as well as the most cited papers in this area.

The second level of analysis focused on science mapping, aimed at discerning the conceptual structure and trending topics related to AI's role in managerial decision-making. This stage also involved exploring the co-citation network structure and the country collaboration structure within this field of research.

The Biblioshiny environment provided a robust platform for both levels of data analysis, offering effective computation of various bibliometric metrics and enabling the visualization of diverse bibliometric networks. This two-pronged approach to data analysis thus ensures an in-depth and detailed exploration of the field, enhancing our understanding of the research landscape of AI's implications in managerial decision-making (Aria & Cuccurullo, 2017).

PERFORMANCE RESULTS

The following results includes descriptive statistics of the data collected, trends in publication and citation, the most productive and influential sources and countries, and finally, the most highly cited papers.

Table 1 provides statistical information on the bibliographic data collected for research in the implications of artificial intelligence in managerial decision making. In particular, the collection encompasses 544 articles published in 338 scientific sources. It covers contributions from 1850 authors. On average, each article was written by approximately 3.69 authors (i.e., the number of authors per document), and 83 articles were authored by a single individual.

TABLE 1
MAIN INFORMATION ABOUT BIBLIOGRAPHIC DATA COLLECTION

Description	Results
Timespan	1991-2023
Sources (Journals, Books, etc)	338
Documents	544
Authors	1850
Authors of single-authored docs	82
Single-authored docs	83
Co-Authors per Doc	3.69
References	31901
Average citations per doc	13.8
Author's Keywords (DE)	1924
Annual Growth Rate %	9.36
Document Average Age	5.25
International co-authorships %	31.43
DOCUMENT TYPES	
articles	482
early access articles	46
proceedings paper	16

Figure 1 depicts the annual scientific production in the field of AI's implications in managerial decision making. The annual scientific growth rate was approximately 9.36%. As displayed in Figure 1, there was a considerable surge in the number of publications in the recent five years (2018-2023), which represents most of the articles. This suggests that AI's role in managerial decision making is a rapidly expanding research field garnering increasing interest from researchers. It is anticipated that the prevalence of AI-related topics in research publications worldwide will continue to grow in the coming years. Observing Figure 1, the highest number

of research articles were published in 2022, while the period before 2017, marking the pivot point for training large language models (Vaswani et al., 2017), saw fewer publications.

However, the number of publications is expected to grow even more in 2023, indicating a rising trend in this research area. The fact that some recent articles may not yet have appeared in the Clarivate Web of Science database could significantly influence the data for 2023.

FIGURE 1
ANNUAL SCIENTIFIC PRODUCTION FROM 1991 TO 2021

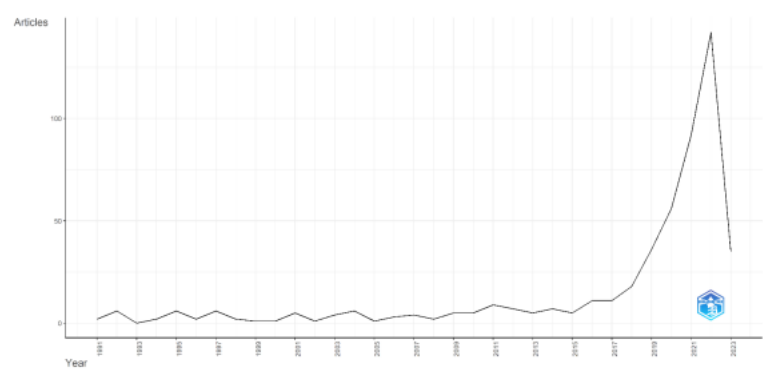


Table 2 indicate a diverse distribution of publications across various sources, with no dominant single source in the field. Notable contributions come from journals such as Sustainability, Journal of Business Research, Industrial Marketing Management, Applied Sciences-Basel, and IEEE Transactions on Engineering Management.

TABLE 2
MOST PRODUCTIVE SOURCES

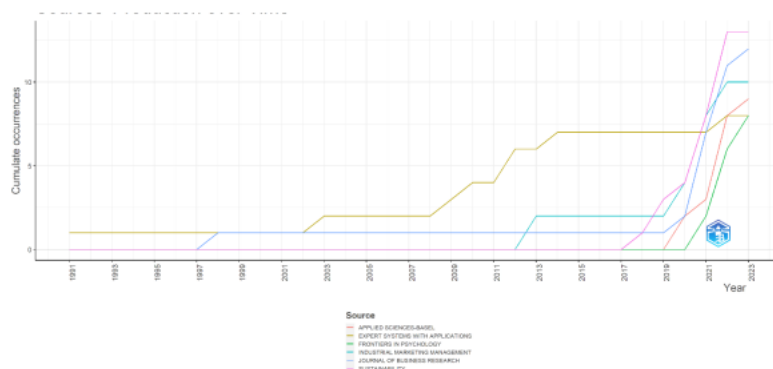
Sources	
	Sustainability 13
	Journal of Business Research 12
	Industrial Marketing Management 10
	Applied Sciences-Basel 9
	IEEE Transactions on Engineering Management 9
	Expert Systems with Applications 8
	Frontiers In Psychology 8
	IEEE Access 7
	Journal of Enterprise Information Management 7
	Journal of Intelligent & Fuzzy Systems 7
	Information Systems Frontiers 6
	International Journal of Information Management 6
	Computational Intelligence and Neuroscience 5

International Journal of Production Research	5
Technological Forecasting and Social Change	5
Wireless Communications & Mobile Computing	5
Annals of Operations Research	4
Business Horizons	4
Computers & Industrial Engineering	4
European Journal of Operational Research	4
Expert Systems	4
Mobile Information Systems	4
Problemy Zarzadzania-Management Issues	4
Sensors	4
Business Strategy and the Environment	3

Figure 2 displays the chronological development of the cumulative number of publications for the leading scientific sources. From this figure, we observe that the publication 'Expert Systems with Applications' was the dominant source from 1991 until 2018. This publication consistently released a significant number of papers on the implications of AI in managerial decision making. However, in 2018, the scenario started to shift. Publications like 'Sustainability', 'Journal of Business Research', and 'Industrial Marketing Management' began to show a more substantial number of papers on this topic. These sources have since seen a rising trend, publishing an increasing quantity of articles relating to the impact of AI on managerial decision making.

FIGURE 2

DYNAMICS OF THE CONTENT RELATED TO THE SUBJECT FROM DIFFERENT SCIENTIFIC SOURCES



This shift in dominant sources may reflect changes in the thematic focus of these journals or an overall increase in interest in the implications of AI in business and management fields. Ultimately, these trends underscore the burgeoning importance of artificial intelligence in shaping managerial decision making in contemporary business research.

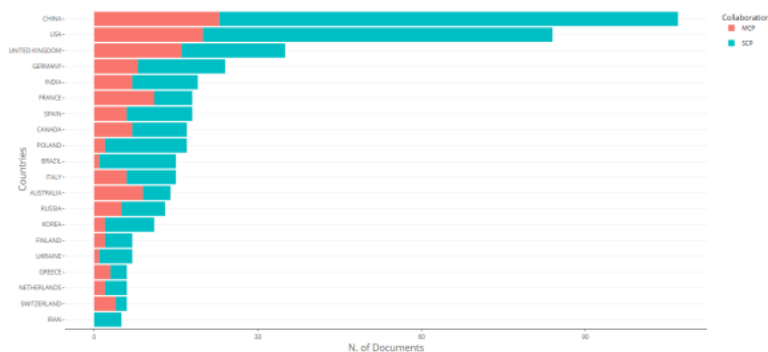
Figure 3 demonstrates the scientific production of countries in terms of publications and multi-country collaboration in the research field of the implications of AI in managerial decision-making. This is based on the country of the corresponding author. SCP denotes Single Country Publications, while MCP represents Multiple Country Publications.

From these results, it is apparent that China, the USA, and the UK have published 107, 84, and 35 articles respectively. Of these, 23 of the 107 articles from China, 20 of the 84 articles from the USA, and 16 of the 35 articles from the UK resulted from international collaboration. Therefore, the countries with a high degree of international collaboration are China, the USA, and the UK.

Looking more specifically at the MCP ratio of the top ten countries (i.e., as a proportion of the total number of publications), Australia has the highest MCP ratio at 64%, followed by France at 61% and Greece at 50%. The MCP ratio is lower for Canada, standing at 41%.

FIGURE 3

CORRESPONDING AUTHOR'S COUNTRY (SCP = SINGLE COUNTRY PUBLICATIONS, MCP = MULTI COUNTRY PUBLICATIONS)



Interestingly, no African country appears in the top 20 contributors, highlighting a geographical discrepancy in the research contributions on this topic. These patterns indicate the prevalent global interest in the implications of AI in managerial decision-making, with certain countries engaging more actively in international collaborations.

Figure 4 illustrates the most frequently cited countries in this research field. This graph reveals that the United Kingdom stands as the forerunner in this research area, closely trailed by the USA and China. These countries are characterized by high impact, evidenced by their substantial contributions to the body of research publications in this domain. Conversely, it is notable that Africa is conspicuously absent from the top 20 cited countries, reflecting a geographical imbalance in the research contributions and their impact on this topic.

FIGURE 4

MOST CITED COUNTRIES

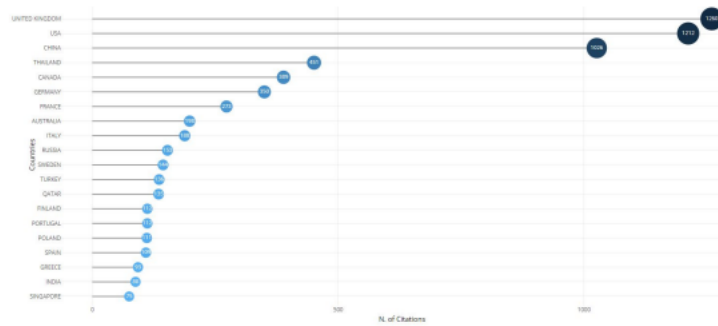


Table 3 presents the top 10 articles based on their cumulative citations. Upon examining the findings outlined in Table 3, it becomes evident that the research conducted by Dwivedi, Hughes, Ismagilova, Aarts, Coombs, et. al. (2021) has received the highest number of citations. This is followed by the studies authored by Bousquet and Le Page (2004), as well as Fang, Xu, Zhu, Ahati, Pei, Yan, and Liu (2014).

Furthermore, in relation to this research, it is noteworthy that the article by Dwivedi et al. (2021) titled "Artificial Intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy" published in the International Journal of Information Management addresses the challenges associated with AI. Conversely, the research by Bousquet and Le Page (2004) titled "Multi-agent simulations and ecosystem management: a review" published in Ecological Modelling examines the opportunities offered by multi-agent simulations in ecosystem management. Additionally, the article by Fang et al. (2014) titled "An Integrated System for Regional Environmental Monitoring and Management Based on Internet of Things" published in the IEEE Transactions on Industrial Informatics focuses on exploiting the opportunities presented by the Internet of Things (IoT) for regional environmental monitoring and management.

TABLE 3
TOP 20 ARTICLES BY TOTAL CITATIONS

Article	Total Citations	Total Citations per Year	Normalized TC
Dwivedi, Y.K. <i>et al.</i> (2021) 'Artificial Intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy', <i>International Journal of Information Management</i> , 57, p. 101994. Available at: https://doi.org/10.1016/j.ijinfomgt.2019.08.002 .	517	172.33	28.97
Bousquet, F. and Le Page, C. (2004) 'Multi-agent simulations and ecosystem management: a review', <i>Ecological Modelling</i> , 176(3–4), pp. 313–332. Available at: https://doi.org/10.1016/j.ecolmodel.2004.01.011 .	451	22.55	4.44
Fang, S. <i>et al.</i> (2014) 'An Integrated System for Regional Environmental Monitoring and Management Based on Internet of Things', <i>IEEE Transactions on Industrial Informatics</i> , 10(2), pp. 1596–1605. Available at: https://doi.org/10.1109/TII.2014.2302638 .	283	28.30	4.39
Sadri, F. (2011) 'Ambient intelligence: A survey', <i>ACM Computing Surveys</i> , 43(4), pp. 1–66. Available at: https://doi.org/10.1145/1978802.1978815 .	230	17.69	6.20
Mian, S. (2001) 'On the choice and replacement of chief financial officers', <i>Journal of Financial Economics</i> , 60(1), pp. 143–175. Available at: https://doi.org/10.1016/s0304-405x(01)00042-3 .	146	6.35	3.12

Article	Total Citations	Total Citations per Year	Normalized TC
Steinhoff, L. <i>et al.</i> (2019) 'Online relationship marketing', <i>Journal of the Academy of Marketing Science</i> , 47(3), pp. 369–393. Available at: https://doi.org/10.1007/s11747-018-0621-6 .	141	28.20	5.14
Angelis, J. and Silva, E.R. da (2019) 'Blockchain adoption: A value driver perspective', <i>Business Horizons</i> , 62(3), pp. 307–314. Available at: https://doi.org/10.1016/j.bushor.2018.12.001 .	132	26.40	4.81
Nishant, R., Kennedy, M. and Corbett, J. (2020) 'Artificial intelligence for sustainability: Challenges, opportunities, and a research agenda', <i>International Journal of Information Management</i> , 53, p. 102104. Available at: https://doi.org/10.1016/j.ijinfomgt.2020.102104 .	120	30.00	7.94
Davidson, E.M. <i>et al.</i> (2006) 'Applying Multi-Agent System Technology in Practice: Automated Management and Analysis of SCADA and Digital Fault Recorder Data', <i>IEEE Transactions on Power Systems</i> , 21(2), pp. 559–567. Available at: https://doi.org/10.1109/TPWRS.2006.873109 .	115	6.39	1.86
Abubakar, A.M. <i>et al.</i> (2019) 'Applying artificial intelligence technique to predict knowledge hiding behavior', <i>International Journal of Information Management</i> , 49, pp. 45–57. Available at: https://doi.org/10.1016/j.ijinfomgt.2019.02.006 .	103	20.60	3.76

Sadri's survey on ambient intelligence (2011) offers a comprehensive overview of this emerging field, exploring its various dimensions and implications. In a different domain, Mian's study (2001) focuses on the decision-making process related to chief financial officers (CFOs), shedding light on the factors influencing their selection and replacement. Shifting to the realm of marketing, Steinhoff *et al.* (2018) delve into online relationship marketing, examining the strategies and practices employed to cultivate and manage customer relationships in the digital era. Turning to cutting-edge technology, Angelis and Silva (2019) adopt a value driver perspective to analyze blockchain adoption and its potential for driving innovation and value creation in organizations. Nishant, Kennedy, and Corbett (2020) contribute to the intersection of artificial intelligence and sustainability, highlighting the challenges, opportunities, and suggesting a research agenda in this realm. In the context of data management, Davidson *et al.* (2006) demonstrate the practical application of multi-agent system technology in automating the management and analysis of SCADA and digital fault recorder data. Lastly, Abubakar *et al.* (2019) delve into the realm of knowledge hiding behavior, leveraging artificial intelligence techniques to predict and address this phenomenon. Together, these articles exemplify the breadth and interdisciplinary nature of research represented in the top 10 based on total citations.

Within this section, findings derived from conducting a science mapping analysis is provided. These findings encompasses the examination of topic and keyword trends, the structure of co-citations, and patterns of collaboration between countries.

From the dimensions of the keywords showcased in Figure 5, the top three keywords are "machine learning", "decision support systems", and "big data", appearing 54, 22, and 20 times in the dataset, respectively. The keyword "machine learning" signals that a significant number of papers are centered around the application of machine learning methodologies, notably in the context of managerial decision-making.

Moreover, the term "decision making" is closely associated with keywords such as "decision support systems", "risk management", "business intelligence", "business analytics", and "supply chain management", based on their semantic meanings. These keywords define a broad subject matter, like the fundamental processes in business management decision-making.

These prevalent keywords shape the content of the majority of studies in the dataset and provide a panoramic view of the methodologies, tools, and thematic focus in the realm of AI and managerial decision-making research.

[illegible]

Four distinct clusters emerge in this figure, each of them associated with a specific research theme, as inferred from the linked keywords. The blue cluster, which is the largest, corresponds to terms linked with Artificial Intelligence, showing that a substantial proportion of

papers in this dataset are rooted in AI methodologies. The green cluster pertains to supply chain management, shedding light on the importance and integration of AI within this domain. The purple cluster focuses on technology, underscoring the critical role of technological advancements and considerations in AI research. The red cluster revolves around decision-making, highlighting its centrality in AI and management contexts.

Of particular interest is the connection between the concept of 'sustainability' and 'artificial intelligence', suggesting an emerging focus on the sustainable application of AI in decision-making processes. Interestingly, there seems to be an absence of terms associated with the risks and uncertainties involved in AI decision-making, indicating potential areas for future exploration. The clusters are interconnected, suggesting a complex and integrated research landscape that blends AI, technology, decision-making, and supply chain management in intricate and multifaceted ways.

CO-OCCURRENCE NETWORK

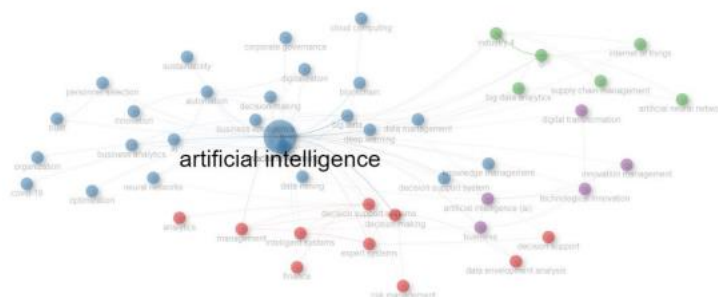


Figure 7 presents the thematic map covering the comprehensive period from 1989 to 2023. This visualization allows for a clear identification of different types of themes in the research field of AI in Management Decision Making, based on their density and centrality.

In the upper-right quadrant, the motor themes with high centrality and density are located, reflecting the well-researched and integral areas within this field. These motor themes include "cost", "fuzzy", "group-decision making", "trust", "automation", and "leadership". These clusters primarily underscore the integration of AI into management practices and the significance of decision-making processes. Basic themes that form the foundational research areas of this field, residing in the lower-right quadrant, include "management", "decision making", "performance selection", "big data analysis", "supply chain", and "quality services decision-support". These themes highlight the broad categories that this research field encompasses. Niche themes that represent specialized, yet impactful, research areas are found in the upper-left quadrant. These comprise "elicitation", "belief networks", "organisational justice", "procedural justice", and "people". These clusters reveal the intersection of AI and management with psychology and human-centered considerations.

Lastly, in the lower-left quadrant, emerging or declining themes with low centrality and density are placed. These themes, which are either nascent or decreasing in their prominence within this research field, include "age", "smart", "bias", and "human rights". These clusters illuminate the expanding horizon of AI in management research, and the ongoing exploration into issues of demographic considerations, intelligence systems, cognitive biases, and human rights.

FIGURE 7 THEMATIC MAP FOR THE FULL PERIOD (1989-2023)

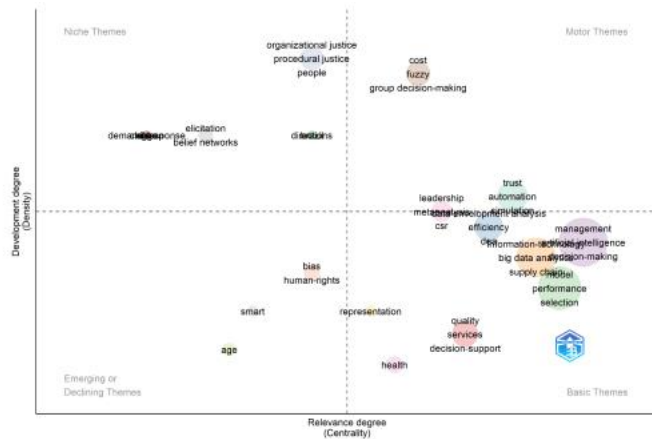


Figure 8 presents a visualization of collaboration at the national level. The various shades of countries and the line thickness in this map symbolize the quantity and proportion of their collaborative endeavors, respectively. Figure 9 offers a more detailed representation, providing a social network of collaboration at the country level. In this network, individual nodes correspond to countries, while the edges connecting two nodes illustrate the collaboration between those nations. The size of a country node mirrors the frequency of collaborations originating from that particular country, and the edge thickness conveys the intensity of the cooperative relationships between nations.

FIGURE 8

MAP OF COLLABORATION AMONG COUNTRIES



Two major clusters are evident in Figure 9, between USA and Europe, where China is interestingly closely intertwined with the USA. It is evident that European countries have significant inter collaboration links, whereas the USA have wider geographical links. The absence of Africa and collaboration with Africa is evident in both Figure 8 and Figure 9.

FIGURE 9

SOCIAL NETWORK OF COLLABORATION AT THE COUNTRY LEVEL

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The role of strategic intelligence in strategic management

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ABSTRACT

This paper explores the critical role of strategic intelligence in strategic management. The study, aims to demonstrate that strategic intelligence can provide valuable insights into a firm's external and internal environment and help managers make informed decisions about the direction and future of their organization. The paper argues that strategic intelligence plays a crucial role in strategic management, as it provides decision-makers with the information needed to identify opportunities and threats, and to develop and execute effective strategies. The paper first defines strategic intelligence and its key components and explains its importance in strategic management. It further discusses the role of strategic intelligence in enhancing organizational performance. The paper concludes by emphasizing the need for organizations to prioritize strategic intelligence in their strategic management processes and offer recommendations for how organizations can improve their strategic intelligence practices to achieve sustainable competitive advantage in an increasingly complex and dynamic business environment.

Keywords: Intelligence, strategic intelligence, business intelligence, marketing intelligence, competitive intelligence, knowledge management, strategic management.

INTRODUCTION

Strategic intelligence (SI) is a critical aspect of strategic management, which involves gathering and analyzing information about the competitive environment, market trends, and other factors that can affect an organization's strategic decisions (Fernández-Villacañas, 2016). It is a continuous process that requires organizations to remain vigilant and informed about changes in the business environment in order to make informed decisions about resource allocation, product development, marketing, and other strategic initiatives (Fleisher & Bensoussan, 2015).

Recent studies have emphasized the importance of strategic intelligence in the digital age, where organizations are faced with an increasing amount of data and information from various sources, including social media, mobile devices, and other digital channels (Fernández-Villacañas, 2017). In this context, strategic intelligence involves not only the collection and analysis of data but also the ability to extract actionable insights and make strategic decisions in a timely manner. Recent research has also highlighted the importance of strategic intelligence in organizations' ability to respond to changes in the competitive landscape and adapt to new opportunities and threats. For example, a study by Boikanyo, Lotriet and Buys (2016) found that strategic intelligence was critical for firms to identify emerging technologies and business models, and to develop appropriate responses to these changes.

To gather and analyze information for strategic intelligence, organizations may use a range of tools and techniques, such as data analytics, market research, customer feedback, social media analysis, competitive analysis, and trend monitoring (Fleisher & Bensoussan, 2015). These methods can be supported by the use of advanced analytics and business intelligence

tools, which allow organizations to process large amounts of data and identify patterns and trends that may not be immediately apparent. In addition, some organizations have developed dedicated strategic intelligence units or teams, whose main responsibility is to collect and analyze information and provide insights and recommendations to decision-makers (Fleisher & Bensoussan, 2007).

This paper outlines the importance of strategic intelligence, its evolution, different components of SI, the best practices, the formal intelligence systems, the challenges associated with developing and implementing a strategic intelligence program and provide recommendations on how to overcome them and for the successful implementation of SI for strategic decision making and management. The ultimate goal of this paper is to fill the gap in knowledge regarding the role of strategic intelligence in strategic management and provide practical guidance for organizations seeking to incorporate strategic intelligence into their strategic management process.

METHODOLOGY

This conceptual paper aims to explore and synthesize existing literature related to the topic. The methodology employed in this study is rooted in a comprehensive review of peer-reviewed articles, books, reports, and other scholarly sources pertinent to the chosen topic. The process followed a systematic approach to identify, select, and analyse relevant literature to develop a holistic understanding of the conceptual underpinnings and theoretical frameworks that surround the topic.

Ethical considerations

Given that this study relied solely on existing literature, ethical approval was not required. However, proper citation practices were observed to acknowledge the contributions of the authors of the selected works.

IMPORTANCE OF SI IN STRATEGIC MANAGEMENT

Strategic intelligence is critical for effective strategic management, as it allows organizations to gather and analyze information about the internal and external environment, and make informed decisions about resource allocation, product development, and other strategic initiatives. Recent research has emphasized the importance of strategic intelligence in supporting organizational performance and competitive advantage (Fernández-Villacañas, 2017).

One key reason for the importance of strategic intelligence is its ability to help organizations anticipate and respond to changes in the competitive landscape. Strategic intelligence is critical for firms to identify new business opportunities and threats, and to develop appropriate responses to these changes. This is particularly important in fast-changing industries and markets, where traditional approaches to strategic planning may be insufficient (Mintzberg, Ahlstrand & Lampel, 2015).

In addition, strategic intelligence can help organizations to more effectively allocate their resources and manage risk. For example, a study by Boikanyo et al. (2016) found that strategic intelligence was positively associated with organizational performance, and was particularly important for firms operating in high-risk environments. By providing organizations with a better understanding of the risks and opportunities in their environment, strategic intelligence can help them to make more informed decisions about investments and other resource allocations.

Another important role of strategic intelligence is in supporting innovation and new product development. Strategic intelligence is critical for firms to identify emerging technologies and customer needs, and to develop new products that meet these needs. This is particularly important in industries that are undergoing rapid technological change, where the ability to innovate and bring new products to market quickly can be a key source of competitive advantage (Dobni, 2020).

Strategic intelligence can also help organizations to improve their internal operations and processes. By gathering information on their own performance and the performance of their competitors, organizations can identify areas for improvement and make more effective use of their resources (Hodgkinson & Sadler-Smith, 2018). A study by Minina and Botschen (2020) found that strategic intelligence was particularly important for small and medium-sized enterprises, as it allowed them to optimize their operations and improve their competitiveness.

In addition to these benefits, strategic intelligence can also help organizations to develop a more proactive and future-oriented approach to strategy. By gathering and analyzing information on emerging trends and technologies, organizations can position themselves to take advantage of new opportunities and stay ahead of their competitors (Hodgkinson & Sadler-Smith, 2018). A study by Tan and Rahman (2019) found that strategic intelligence was critical for firms to successfully implement innovation strategies and develop new products and services.

Overall, the importance of strategic intelligence in strategic management is becoming increasingly clear, as organizations seek to adapt to a rapidly changing business environment. By gathering and analyzing information on their external and internal environment, organizations can make more informed decisions and improve their performance and competitiveness. Below is a discussion of the use of SI in the three phases of the strategic management process.

Use of SI in different phases of strategic management process

Strategy formulation: In their study of strategic intelligence and strategic decision-making, Karaevli and Zaim (2022) found that strategic intelligence plays a key role in the formulation of effective business strategies. By gathering and analyzing information on the external environment, organizations can develop a more comprehensive understanding of industry trends, customer preferences, and competitor behavior. This information can then be used to develop a strategy that is aligned with the external environment and more likely to achieve organizational goals.

Strategy implementation: In their analysis of the use of strategic intelligence in the implementation of environmental management systems, Garcia-Sanchez, Martinez-Fernandez, and Zorio-Grima (2021) found that strategic intelligence can be used to monitor the progress of strategic initiatives and assess the effectiveness of the implementation process. By gathering information on performance metrics, feedback from employees and customers, and market trends, organizations can make adjustments to their implementation process and ensure that their strategy is being executed effectively.

Strategic evaluation: In their study of the impact of strategic intelligence on organizational performance, Olawale and Garwe (2021) found that strategic intelligence can be used to assess the performance of the organization's strategy and identify areas for improvement. By gathering information on the effectiveness of the strategy in achieving organizational goals, as well as feedback from stakeholders such as customers, employees, and shareholders, organizations can make informed decisions about whether to continue with their current strategy or make adjustments to improve its effectiveness.

Overall, these studies highlight the importance of strategic intelligence in the different phases of strategic management, and demonstrate how it can be used to improve strategic decision-making and organizational performance.

THEORETICAL ASPECTS AND KEY COMPONENTS

The theoretical framework of strategic intelligence is based on the intelligence cycle, which consists of four key phases: planning and direction, collection, analysis, and dissemination (Bryson, 2018). This framework incorporates various types of intelligence, including business intelligence, competitive intelligence, market intelligence, consumer intelligence, and knowledge management.

Business intelligence involves the process of collecting, analyzing, and disseminating data to inform business decision-making (Gartner, 2020). It is a key component of strategic intelligence that provides insights into a company's internal operations, including financial performance, operations management, and human resource management. By leveraging business intelligence, organizations can gain a comprehensive understanding of their business environment and make informed decisions. BI involves the collection and analysis of data from various sources to inform the decision-making process. The purpose of BI is to provide decision-makers with timely and accurate information that is essential for effective and efficient decision-making (Djekic, 2014).

Competitive intelligence refers to the process of collecting and analyzing information about competitors to inform strategic decision-making (Fuld & Connor, 2018). This type of intelligence includes gathering data about competitor products, strategies, and performance. By leveraging competitive intelligence, organizations can gain a competitive advantage and develop strategies to outperform their rivals.

Market intelligence is the process of collecting and analyzing information about the broader market environment to inform decision-making (Wright, S, Eid, E.R. & Fleisher. C.S, 2009). This type of intelligence includes data about market size, trends, and customer preferences. By leveraging market intelligence, organizations can identify opportunities and threats in their market environment and make informed decisions about product development, marketing, and sales. As Kaur and Singh (2020) observe, "Market intelligence helps organizations identify new market opportunities, potential customers, and emerging trends in the industry" (p. 1).

Consumer intelligence involves the process of collecting and analyzing data about consumer behavior to inform decision-making (Perner, 2020). This type of intelligence includes data about consumer preferences, buying habits, and attitudes. By leveraging consumer intelligence, organizations can develop products and services that meet the needs of their target audience and deliver better customer experiences.

Knowledge management refers to the process of collecting, storing, and sharing organizational knowledge to inform decision-making (Davenport & Prusak, 1998). This type of intelligence includes data about organizational processes, expertise, and best practices.

Recent research has highlighted the significance of knowledge management in supporting strategic intelligence, and several studies have explored how knowledge management can be integrated into strategic management processes effectively (Kordab, Mirna & Raudeliuniene, Jurgita & Meidute-Kavaliauskiene, Ieva. 2020)).

One significant role of knowledge management in strategic intelligence is to facilitate the identification and analysis of internal and external factors that impact organizational performance. By gathering and organizing data on market trends, customer needs, and competitor behavior, organizations can gain a more comprehensive understanding of their

environment and develop effective strategies accordingly. A study by Kordab et al. (2020) found that knowledge management can help organizations to identify and analyze emerging trends and potential opportunities, which are critical for developing effective strategies.

Moreover, knowledge management enables organizations to leverage their own knowledge and expertise, contributing to continuous learning and innovative culture (Liebowitz, 2006). By capturing and sharing knowledge and best practices across the organization, organizations can improve their internal capabilities and develop a more innovative and adaptive culture. Knowledge management is particularly important for organizations operating in the technology industry, as it allows them to develop new products and services effectively (Korda et al. (2020).

Another key role of knowledge management in strategic intelligence is to support the development and implementation of new strategies and initiatives. By providing a systematic approach to information and knowledge sharing, organizations can ensure that strategic insights and best practices are effectively communicated and applied across different departments and teams (Korda et al., 2020). Knowledge management was critical for supporting the implementation of organizational change and transformation initiatives, as it allowed organizations to effectively manage and share knowledge across different systems and platforms.

Technology intelligence (TI) is also a key component of strategic intelligence that provides insights into emerging technologies that could impact a company's operations. TI involves the collection and analysis of data on emerging technologies, patent applications, and competitor technology strategies. As Mahmood and Chan (2021) note, "TI is critical for companies to stay ahead of the competition and identify opportunities to improve operations and create value for customers" (p. 1).

In addition to the intelligence cycle and various types of intelligence, cross-functional collaboration is also a crucial component of the theoretical framework of strategic intelligence. It involves teams from various departments and levels of the organization working together to identify and respond to market opportunities and threats. According to Bryson (2018), cross-functional collaboration is critical for effective strategic intelligence, as it helps ensure that intelligence is shared across the organization and used to inform decision-making. By promoting cross-functional collaboration, organizations can enhance their strategic decision-making capabilities, improve their agility and responsiveness, and increase their chances of long-term success (Bryson, 2018). However, effective cross-functional collaboration requires careful planning, leadership, and management. Organizations must develop clear processes for sharing information, managing conflicts, and aligning goals and objectives across different departments and functional areas.

Overall, the theoretical framework of strategic intelligence draws on a range of models and theories from intelligence studies, knowledge management, and strategic management. By utilizing various types of intelligence, including business intelligence, competitive intelligence, market intelligence, consumer intelligence, and knowledge management, organizations can gain a competitive advantage, identify opportunities and threats, and make informed decisions. By integrating these frameworks, organizations can develop a comprehensive approach to intelligence gathering and analysis that helps them stay ahead of market trends and identify new opportunities. The evolution of SI is discussed below.

THE EVOLUTION OF STRATEGIC INTELLIGENCE AND ITS APPLICATION TO BUSINESS

The evolution of strategic intelligence has gone through several stages over the years. Initially, it was used for military purposes in times of conflict, but it has since been adapted for use in

the business world. Historically, strategic intelligence was primarily used to respond to competitors' actions or market changes. However, today's businesses are increasingly adopting a proactive approach, leveraging strategic intelligence to anticipate and shape future events. As Simchi-Levi (2017) notes, "In today's highly competitive markets, a company that relies on reactive decision-making is likely to find itself in a defensive posture, responding to events rather than shaping them" (p. 2).

Advanced analytics and machine learning have revolutionized the way businesses use strategic intelligence to gain a competitive edge. With the growth of big data, it has become possible to collect and analyze vast amounts of data from multiple sources. Companies use sophisticated data analysis tools to extract insights from large datasets. Vesset, Reinsel, Gantz & Schlichting. (2018) observe that "The application of advanced analytics and artificial intelligence to large datasets provides unprecedented opportunities for business intelligence and predictive analytics" (p. 3).

Another significant development in the evolution of strategic intelligence is the growing trend towards collaboration. Companies are increasingly collaborating with external partners, such as suppliers and customers, to gather intelligence and develop joint strategies. Mellahi, Demirbag & Yucel (2021) argue that "Collaborative strategic intelligence involves sharing information and knowledge, analyzing information together, and jointly developing strategies to create value" (p. 22).

In conclusion, the evolution of strategic intelligence has undergone significant changes in recent years, with a shift towards a proactive approach, the use of advanced analytics and machine learning, and collaboration with external partners. These developments have enabled businesses to gain a competitive advantage in their respective industries and remain relevant in a highly competitive market. The best practices for SI are discussed below.

BEST PRACTICES FOR SI

Strategic intelligence is a critical element in the success of an organization, and best practices have been identified to improve its implementation. Recent research highlights several best practices for strategic intelligence that can help organizations to achieve a competitive advantage and improve their strategic decision-making processes (Liu, Li, & Li, 2021;).

One of the most important best practices is to establish a dedicated team for strategic intelligence. This team should be responsible for collecting and analyzing information on market trends, customer needs, and competitor behavior to inform strategic decision-making (Rafsanjani, 2021). The team should have a diverse set of skills and expertise, and it should work closely with other departments in the organization to ensure that all relevant data is gathered and analyzed effectively.

Another important best practice for strategic intelligence is to foster collaboration and knowledge sharing across different departments and teams within an organization. By breaking down silos and encouraging cross-functional collaboration, organizations can leverage a diverse range of expertise and perspectives to inform strategic decision-making (Dzhandzhugazova & Kuchеров, 2020). Collaboration and information sharing are critical for effective strategic intelligence in the financial industry, where organizations must navigate complex regulatory requirements and rapidly changing market conditions. It is essential to establish a culture of knowledge sharing and collaboration within the organization. This includes creating channels for information sharing and ensuring that knowledge is shared effectively across different departments and teams. By promoting collaboration and knowledge sharing, organizations can improve their strategic decision-making processes and enhance their overall performance (Seitovirta, 2011).

Another best practice is to use a structured process for strategic intelligence. This process should involve gathering and organizing data, analyzing and interpreting the data, and

developing and implementing strategies accordingly. The process should be systematic, transparent, and flexible, allowing for adjustments as new information becomes available.

In addition, it is important to leverage technology and data analytics in strategic intelligence. Advanced technologies, such as artificial intelligence and machine learning, can help organizations to process and analyze vast amounts of data, providing insights that can inform strategic decision-making (Rafsanjani, 2021). Data analytics can help organizations to identify patterns and trends in data, and predictive analytics can be used to anticipate changes in the business environment.

Stakeholder engagement is another essential best practice for strategic intelligence. By actively engaging with stakeholders, including customers, employees, and partners, organizations can gain valuable insights into market trends, customer needs, and emerging risks and opportunities (Li et al., 2021). A study by Dzhandzhugazova and Kuchеров (2020) found that stakeholder engagement was particularly important for effective strategic intelligence in the tourism industry, where organizations must continuously adapt to changing customer preferences and travel trends.

Finally, it is crucial to ensure that strategic intelligence is embedded in the organizational culture and strategy. This requires a commitment from senior management to support and invest in strategic intelligence, and it requires regular monitoring and evaluation of the strategic intelligence processes and outcomes (Richards, Yeoh, Loong & Popovic, 2019). By embedding strategic intelligence in the organizational culture and strategy, organizations can ensure that they remain competitive and adaptable in a rapidly changing business environment.

The use of formal intelligence systems is encouraged as outlined below.

THE USE OF FORMAL INTELLIGENCE SYSTEMS

The use of formal intelligence systems has become increasingly prevalent in recent years, as organizations seek to improve their ability to gather, analyze, and disseminate information in support of their strategic decision-making processes. Research has shown that the use of such systems can provide numerous benefits, including improved decision-making, increased competitiveness, and enhanced organizational performance.

Formal intelligence systems are designed to provide a structured and systematic approach to intelligence gathering, analysis, and dissemination. They typically involve the use of technology and software tools to collect and analyze data from a range of sources, including market research, customer feedback, and competitor intelligence. The use of these systems can help to streamline the intelligence gathering process and provide a more comprehensive view of the business environment.

Such systems involve the use of advanced technologies and analytical tools to process large amounts of data and generate insights that can inform decision-making (Choi, 2021). Thus one of the main advantages of formal intelligence systems is their ability to collect and process vast amounts of data from various sources. This includes internal data from organizational systems, as well as external data from market research, customer surveys, and competitor analysis (Choi, 2021). The use of formal intelligence systems can help organizations to identify patterns and trends in data, enabling them to make more informed decisions.

Another advantage of formal intelligence systems is their ability to automate data collection and analysis processes. This can save time and reduce the risk of errors and biases that may arise from manual data analysis (Buchner, 2018). The use of formal intelligence systems can

also provide a more objective and unbiased view of the business environment, as it relies on data rather than subjective opinions.

Formal intelligence systems also allow for the dissemination of information to relevant stakeholders within the organization. This includes sharing of reports and insights generated from the analysis of data, which can be used to inform strategic decision-making (Choi, 2021). The use of formal intelligence systems can improve communication and collaboration within the organization, as it provides a shared understanding of the business environment and the factors that may impact the organization's performance.

However, the use of formal intelligence systems also presents some challenges. One of the main challenges is the complexity of the systems, which may require specialized skills and expertise to operate effectively (Clark, 2019). The use of formal intelligence systems may also require significant investment in terms of technology and resources, which may be a barrier for smaller organizations. Below is a discussion of some challenges that are encountered in the implementation of SI.

CHALLENGES IN IMPLEMENTING STRATEGIC INTELLIGENCE

Implementing strategic intelligence can be a challenging process for organizations, especially in today's rapidly changing business environment. The following are some of the key challenges that organizations may face when implementing strategic intelligence, along with recent in-text citations to support these challenges:

Gathering Relevant Data: One of the primary challenges in implementing strategic intelligence is the difficulty of gathering relevant data. The data needs to be accurate, timely, and relevant to the organization's objectives. However, this can be challenging in today's information-rich environment, where data is often dispersed across multiple sources and formats (Chen & Li, 2020). Moreover, the data may be outdated, incomplete, or irrelevant to the organization's current needs.

Analyzing the Data: Another significant challenge is the need to analyze the data effectively. This involves selecting appropriate tools and techniques to analyze the data and derive meaningful insights. However, many organizations lack the necessary analytical skills, technologies, and infrastructure to do this effectively.

Ensuring Data Security and Privacy: Organizations also need to ensure that the data they gather is secure and private. This involves implementing appropriate security measures to protect the data from unauthorized access, theft, or misuse (Zhang et al., 2020). Moreover, organizations need to comply with data privacy regulations, which can be complex and challenging to navigate.

Integrating Data from Multiple Sources: Organizations may also face challenges in integrating data from multiple sources. This involves reconciling data from different sources and formats, which can be time-consuming and resource-intensive (Chen & Li, 2020). Moreover, the data may be siloed across different departments, making it difficult to obtain a holistic view of the organization's performance.

Overcoming Resistance to Change: Finally, organizations may face resistance to change when implementing strategic intelligence. Employees may be hesitant to adopt new processes or technologies, or they may not have the necessary skills or knowledge to use them effectively (Ma et al., 2020).

In conclusion, implementing strategic intelligence can be a complex and challenging process for organizations. However, organizations can overcome these challenges by adopting best

practices for strategic intelligence and investing in the necessary technologies, infrastructure, and human resources.

Below are the recommendations that can assist organizations to improve their SI capabilities.

RECOMMENDATIONS FOR IMPROVING STRATEGIC INTELLIGENCE CAPABILITIES

Enhance data collection and analysis: To improve strategic intelligence capabilities, companies should focus on enhancing their data collection and analysis capabilities. This involves leveraging advanced data analytics tools and technologies, such as machine learning, to analyze large amounts of data and gain insights into customer behavior and market trends (Makri, Kostopoulos & Ioannou, 2021).

Foster a culture of knowledge sharing: To ensure that strategic intelligence is effectively shared and utilized across the organization, companies should foster a culture of knowledge sharing. This involves creating formal knowledge management systems and providing training and support for employees to share and use intelligence effectively.

Develop a cross-functional approach: Strategic intelligence should be a cross-functional endeavor, involving teams from various departments and levels of the organization. By involving employees from different areas of the business, companies can gain a more comprehensive and integrated view of the market and their operations.

Stay up-to-date with new technologies and best practices: To ensure that strategic intelligence capabilities remain relevant and effective, companies should stay up-to-date with new technologies and best practices. This involves investing in ongoing training and development for employees and regularly reviewing and updating intelligence systems and processes (Buchner, 2018).

Leverage external intelligence sources: In addition to internal data and intelligence, companies should also leverage external intelligence sources, such as industry reports and market research, to gain a more comprehensive view of the market and competition.

The future of strategic intelligence is rapidly evolving as new technologies and trends emerge. Recent research highlights the importance of leveraging big data, artificial intelligence, and machine learning to enhance intelligence capabilities and gain a competitive advantage. In addition, there is a growing need for real-time monitoring and analysis of social media and other digital platforms to stay abreast of emerging trends and threats (Buchner, 2018).

These recommendations can help companies improve their strategic intelligence capabilities and gain a competitive edge in the market.

Below are some recommendations for future research.

Recommendations for future research

- **Investigate the effectiveness of different types of strategic intelligence:** There are various types of strategic intelligence, including competitor intelligence, customer intelligence, and technological intelligence. Future research can examine which types of strategic intelligence are most effective in different industries and contexts.
- **Development of a comprehensive framework:** There is a need for the development of a comprehensive framework that can guide the integration of strategic intelligence into strategic management. This framework should consider the different types of strategic

intelligence, the sources of data, the tools and techniques for analysis, and the organizational structures and processes required for effective implementation.

- Empirical studies on the effectiveness of strategic intelligence: More empirical studies are needed to evaluate the effectiveness of strategic intelligence in strategic management. These studies should explore the impact of strategic intelligence on organizational performance, including its contribution to strategic decision-making, competitive advantage, and innovation.
- Role of technology: With the rapid advancement of technology, there is a need to investigate the role of technology in strategic intelligence. This includes the use of artificial intelligence, machine learning, and big data analytics in collecting and analyzing strategic intelligence data.
- Cross-cultural analysis: Cultural factors can significantly influence the effectiveness of strategic intelligence processes. Therefore, future research should explore how cultural differences impact the implementation and use of strategic intelligence in different regions and industries.
- Longitudinal studies: Longitudinal studies can help to understand how strategic intelligence evolves over time and how it influences strategic decision-making. Such studies can also identify the factors that drive changes in strategic intelligence processes and the impact of these changes on organizational performance.
- The role of leadership: The role of leadership in promoting the use of strategic intelligence in strategic management is an important area for future research. This includes exploring how leaders can foster a culture of strategic intelligence, promote the use of strategic intelligence tools and techniques, and support the integration of strategic intelligence into strategic decision-making processes.

CONCLUSION

Strategic intelligence is critical to effective strategic management, as it provides organizations with the insights and information needed to make informed decisions and respond to changing market conditions. Companies that invest in knowledge management, formal intelligence systems, and a cross-functional approach to intelligence gathering and analysis can gain a competitive edge in the market. However, there are also challenges to implementing strategic intelligence, which require ongoing monitoring and updating to ensure that intelligence capabilities remain relevant and effective

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The role of strategic innovation and strategic leadership in strategic management in a VUCA world

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ABSTRACT

This paper explores the role of strategic innovation and leadership in strategic management practices for the VUCA world. It argues that traditional approaches are inadequate in the face of volatility, uncertainty, complexity, and ambiguity, necessitating a holistic integration of strategic innovation, leadership, and management. The review provides an overview of the VUCA world and emphasizes the importance of strategic innovation and leadership in addressing its challenges. A model is presented to understand their interdependence. The paper examines different types of strategic innovation and highlights its significance in responding to VUCA challenges, along with examples. It also explores key attributes of strategic leadership and its importance, providing examples of strategic leadership in response to VUCA challenges. Ultimately, the paper concludes by emphasizing the interconnectedness of strategic innovation, leadership, and management, offering implications for future research and recommending a collaborative approach for organizations.

Keywords: Innovation, strategic innovation, strategic leadership, strategic management

1. INTRODUCTION AND BACKGROUND

The business environment is becoming increasingly volatile, uncertain, complex, and ambiguous (VUCA) due to technological advancements, globalization, and geopolitical tensions (Shimizu et al., 2018). This has significant implications for organizations, as they must adapt and innovate to remain competitive (Kim & Mauborgne, 2017). Traditional strategic management practices that are effective in stable and predictable environments may no longer be sufficient in the VUCA world (Raisch & Birkinshaw, 2008).

To address the challenges posed by the VUCA world, organizations must embrace strategic innovation and strategic leadership as critical components of their strategic management practices (Pisano, 2019). Strategic innovation involves creating new products, services, processes, and business models to respond to changing market conditions (Tushman & O'Reilly, 2016). Strategic leadership, on the other hand, involves setting a clear vision, creating a culture of innovation, and mobilizing resources to achieve strategic objectives (Hitt et al., 2019).

The purpose of this paper is to examine the role of strategic innovation and strategic leadership in strategic management practices used for the VUCA world. The objectives of this paper are therefore:

- To provide a theoretical foundation for the study of strategic innovation, strategic leadership, and strategic management practices in the VUCA world.
- To examine the role of strategic innovation and strategic leadership in addressing the challenges posed by the VUCA world.

- To identify best practices for incorporating strategic innovation and strategic leadership in strategic management practices used for the VUCA world.

This paper seeks to answer the following research questions:

- What is the role of strategic innovation and strategic leadership in strategic management practices used for the VUCA world?
- How can organizations integrate strategic innovation and strategic leadership in their strategic management practices to address the challenges posed by the VUCA world?
- What are the best practices for incorporating strategic innovation and strategic leadership in strategic management practices used for the VUCA world?

Overall, this paper argues that strategic innovation and strategic leadership are critical components of strategic management practices in the VUCA world. Organizations must adopt a holistic approach that integrates these concepts to remain competitive and achieve sustained success. The significance of this paper lies in its contribution to providing the theoretical foundation and the understanding of strategic innovation, strategic leadership, and strategic management practices used for the VUCA world and highlighting the importance of addressing the challenges posed by this environment.

2. REVIEW OF LITERATURE

2.1 Definition of VUCA

The VUCA (volatile, uncertain, complex, and ambiguous) world has become a prevalent concept in the current business environment (Gheorghe et al., 2021). VUCA is a term that originated in the military to describe the unpredictable and rapidly changing environment of modern warfare (Stiehm, 2002). In the business context, VUCA refers to the highly dynamic and complex environment that organizations face, characterized by rapid and unpredictable changes in the political, economic, technological, and social landscape (Kim and Lee, 2019).

Examples of VUCA challenges in the business world include the impact of disruptive technologies, such as artificial intelligence and blockchain, on industries and markets; the emergence of new and unexpected competitors; changes in consumer preferences and behavior; and the impact of geopolitical instability on global supply chains and markets (Sorupia et al., 2021). These challenges make it difficult for organizations to plan, adapt, and innovate, and require them to adopt a more flexible and adaptable approach to strategic management (Gheorghe et al., 2021). This requires organizations to continuously monitor the environment, identify potential risks and opportunities, and make strategic decisions quickly and effectively (Mavondo et al., 2021).

2.2 The VUCA World and its Implications for Strategic Management

The traditional strategic management practices that were effective in stable and predictable environments may no longer be sufficient in the VUCA world. In this section, we will discuss the implications of the VUCA world for strategic management and explore the need for strategic innovation and strategic leadership in this environment.

Firstly, the VUCA world has significant implications for the traditional approach to strategic management. In this environment, traditional strategic management practices, which focus on long-term planning and linear decision-making, may no longer be effective. According to Gheorghe et al. (2021), organizations operating in the VUCA world must adopt a more flexible and adaptable approach to strategic management. This requires organizations to develop strategies that are dynamic, agile, and responsive to change.

Secondly, the VUCA world has made it difficult for organizations to predict and manage risk. In this environment, risks are complex, interconnected, and difficult to assess, making it challenging for organizations to identify potential threats and opportunities. As a result, organizations must adopt a more proactive and risk-aware approach to strategic management (Sorupia et al., 2021). This requires organizations to continuously monitor and analyze the environment, identify potential risks and opportunities, and develop strategies that can enable them to respond quickly to changes in the business environment.

Thirdly, the VUCA world has increased the importance of strategic innovation and strategic leadership in strategic management. In the VUCA world, strategic innovation is critical for organizations to remain relevant and competitive (Kim and Lee, 2019). Therefore, organizations must prioritize strategic innovation in their strategic management practices to create a culture of innovation and develop strategies that can enable them to create new value for their customers.

Finally, strategic leadership is critical in the VUCA world, as it enables organizations to navigate the complex and uncertain business environment. Strategic leaders must possess the ability to anticipate and respond to changes in the business environment, make strategic decisions quickly and effectively, and inspire and motivate employees to embrace change and innovation (Mavondo et al., 2021). Therefore, organizations must prioritize the development of strategic leadership capabilities in their strategic management practices to enable them to succeed in the VUCA world.

2.2.1 Strategic management practices used for the VUCA world

In the VUCA world, organizations must adopt new approaches that are more flexible and adaptable. One such approach is strategic agility, which refers to an organization's ability to respond quickly and effectively to changes in the business environment (Sorupia et al., 2021). Strategic agility involves developing strategies that are dynamic and flexible, and can be adjusted as needed based on changes in the environment.

Another approach to strategic management in the VUCA world is scenario planning, which involves creating multiple scenarios of possible futures and developing strategies to respond to each scenario (Gheorghe et al., 2021). Scenario planning helps organizations to anticipate and prepare for potential future risks and opportunities, and to develop strategies that can enable them to adapt quickly to changes in the business environment.

Another strategic management practice that is gaining traction in the VUCA world is strategic foresight, which involves scanning the environment to identify potential future trends and opportunities (Sorupia et al., 2021). Organizations can use strategic foresight to anticipate changes in the environment and develop strategies that enable them to stay ahead of their competitors.

Overall, the VUCA world requires organizations to adopt new strategic management practices that are more dynamic, agile, and responsive to change. By doing so, organizations can remain competitive and succeed in the complex and uncertain business environment.

2.3 The role of strategic innovation in strategic management for the VUCA world

Recent studies have highlighted the importance of strategic innovation in strategic management for the VUCA world. One approach to strategic innovation is the use of disruptive innovation. Disruptive innovation involves creating new markets or disrupting existing ones with innovative products or services (Christensen, 2015). Disruptive innovation is particularly relevant in the VUCA world, where markets are constantly evolving, and new opportunities emerge quickly. For example, companies such as Uber and Airbnb have disrupted the taxi and

hotel industries, respectively, by introducing innovative business models that have transformed the way people travel.

Another approach to strategic innovation is the use of open innovation. Open innovation involves collaborating with external partners, such as customers, suppliers, and other organizations, to develop new products, services, or processes (Chesbrough, 2019). Open innovation enables organizations to access new ideas and expertise and accelerate the pace of innovation. For example, companies such as Lego and Procter & Gamble have used open innovation to develop new products and improve their existing ones.

Furthermore, digital innovation has become increasingly important in the VUCA world, as digital technologies are transforming the way organizations operate and compete. Digital innovation involves leveraging digital technologies, such as artificial intelligence, blockchain, and the Internet of Things, to create new value for customers and improve organizational performance (Fountas et al., 2021). For example, companies such as Amazon and Google have used digital innovation to develop new products and services and improve their operational efficiency.

Another recent strategic innovation theory is the "blue ocean strategy" proposed by Kim and Mauborgne (2015), which suggests that companies can achieve sustained success by creating uncontested market spaces, or "blue oceans," rather than competing in overcrowded and highly competitive "red oceans." This theory emphasizes the importance of identifying and pursuing innovative business opportunities that create new customer value and that are not currently being addressed by existing competitors.

Overall, strategic innovation is critical for organizations to succeed in the VUCA world, and organizations must prioritize strategic innovation in their strategic management practices to remain competitive in the long term.

2.4 The role of strategic leadership in strategic management for the VUCA world

Strategic leaders must possess the ability to anticipate and respond to changes in the business environment, make strategic decisions quickly and effectively, and inspire and motivate employees to embrace change and innovation (Mavondo et al., 2021). Recent studies have highlighted the importance of strategic leadership in strategic management for the VUCA world.

One of the key roles of strategic leadership in the VUCA world is to create a shared vision and purpose for the organization. Strategic leaders must communicate a compelling vision of the future that inspires and motivates employees to work towards a common goal (Gheorghe et al., 2021). This involves developing a clear understanding of the organization's strengths and weaknesses, identifying opportunities and threats in the business environment, and developing strategies that align with the organization's values and objectives.

Another important role of strategic leadership is to foster a culture of innovation and change within the organization. Strategic leaders must create an environment that encourages experimentation, risk-taking, and learning from failure (Sorupia et al., 2021). This involves promoting a mindset of continuous improvement and encouraging employees to generate and share new ideas.

Furthermore, strategic leaders must possess the ability to make strategic decisions quickly and effectively in the face of uncertainty and ambiguity. This requires the ability to analyze complex and diverse information, consider multiple perspectives, and make decisions based on incomplete or imperfect information (Kim and Lee, 2019). Strategic leaders must also possess the ability to communicate their decisions clearly and effectively to employees, stakeholders, and other decision-makers.

2.5 The relationship between strategic innovation, strategic leadership, and strategic management practices for the VUCA world

The VUCA world demands organizations to adapt to rapid changes in the business environment. In such a dynamic environment, strategic innovation, strategic leadership, and strategic management practices play a critical role in the success of an organization.

According to Hamel (2017), strategic innovation is essential for organizations to survive and thrive in the VUCA world. In such a dynamic environment, organizations need to continuously innovate to remain relevant and competitive. Strategic innovation requires organizations to foster a culture of creativity, experimentation, and risk-taking. Strategic leaders play a crucial role in promoting strategic innovation by creating a vision for the future, encouraging innovation, and providing resources for research and development (R&D) activities (Bryson, 2018). Strategic leadership involves the development and execution of a strategic vision that guides the organization towards achieving its goals. Strategic leaders are responsible for creating a clear vision, setting goals and objectives, and aligning resources and capabilities to achieve those objectives (Eisenbeiss, Knippenberg, & Boerner, 2008). In the VUCA world, strategic leaders need to be adaptable and flexible, able to respond quickly to changes in the business environment. Strategic leadership is critical for fostering a culture of innovation, empowering employees to take risks, and encouraging experimentation (Yukl, 2010).

Strategic management practices involve the formulation, implementation, and evaluation of strategies that enable organizations to achieve their goals. Strategic management practices are essential for organizations to navigate the complex and uncertain business environment. According to Porter (1996), strategic management practices involve three essential activities: identifying the competitive environment, choosing a strategy that creates a sustainable competitive advantage, and implementing that strategy effectively. In the VUCA world, strategic management practices need to be flexible, adaptive, and agile to respond quickly to changes in the business environment (Bryson, 2018).

The relationship between strategic innovation, strategic leadership, and strategic management practices is interdependent. Strategic innovation requires strategic leadership to create a culture of creativity and risk-taking, and strategic management practices to evaluate and implement innovative ideas effectively. Strategic leadership requires strategic innovation to create a vision for the future, and strategic management practices to ensure that the organization is capable of achieving that vision. Strategic management practices require both strategic innovation and strategic leadership to identify and respond to changes in the business environment effectively.

The VUCA world demands organizations to continuously innovate and adapt to changes in the business environment. Strategic innovation, strategic leadership, and strategic management practices are critical for the success of organizations in such a dynamic environment. The relationship between these three concepts is interdependent, with each concept relying on the other for its success. Organizations that foster a culture of innovation, develop strategic leaders, and implement flexible and adaptive strategic management practices are better equipped to thrive in the VUCA world.

2.6 Integration of strategic innovation and strategic leadership in strategic management phases

Recent literature emphasizes the importance of integrating strategic innovation and strategic leadership in strategic management practices in a VUCA world. One study by Zhang et al. (2021) emphasizes the need for organizations to adopt an integrated approach to strategic management that aligns innovation and leadership with organizational strategy to remain

competitive in a VUCA world. The study emphasizes that strategic innovation and strategic leadership are not separate concepts but rather must be integrated into all phases of strategic management, from strategy formulation to implementation and evaluation.

Similarly, another study by Liu et al. (2020) highlights the critical role of strategic leadership in facilitating strategic innovation in a VUCA world. The study emphasizes the need for leaders to foster a culture of innovation and to develop the skills and competencies necessary to drive strategic innovation initiatives. The study also notes that strategic innovation must be integrated into all phases of strategic management, from environmental scanning to resource allocation and implementation.

Furthermore, a study by Iqbal et al. (2021) highlights the importance of integrating strategic innovation and strategic leadership in the evaluation phase of strategic management in a VUCA world. The study emphasizes the need for organizations to adopt a dynamic evaluation process that incorporates measures of strategic innovation and leadership effectiveness to ensure that strategic initiatives are aligned with organizational goals and effectively address VUCA challenges.

3. THEORETICAL UNDERPINNINGS OF STRATEGIC INNOVATION AND STRATEGIC LEADERSHIP

Strategic innovation and strategic leadership are critical concepts in strategic management that have been the subject of extensive research over the years. A number of theories have been developed to explain the underlying principles and mechanisms that drive these concepts.

3.1 Strategic Innovation:

One of the primary theories that underpin strategic innovation is the Resource-Based View (RBV) theory, which emphasizes the importance of an organization's internal resources and capabilities in achieving sustainable competitive advantage (Barney, 1991). According to the RBV theory, an organization's resources and capabilities can be a source of competitive advantage only if they are valuable, rare, inimitable, and non-substitutable (VRIN). This theory suggests that organizations must constantly innovate to develop and leverage resources that meet the VRIN criteria to achieve competitive advantage.

Another theory that underpins strategic innovation is the Dynamic Capabilities theory, which emphasizes the importance of an organization's ability to adapt to changing environments and to develop new capabilities in response to new challenges (Teece et al., 1997). This theory suggests that organizations must constantly innovate and adapt to remain competitive in dynamic environments.

Another theory that is relevant to strategic innovation is the Ambidexterity Theory, which suggests that businesses need to balance their exploration of new opportunities with exploitation of existing capabilities (O'Reilly & Tushman, 2013). In a VUCA world, businesses need to continuously adapt and explore new opportunities, while also maintaining their existing strengths. Strategic innovation can help businesses to achieve this balance by developing new capabilities and leveraging their existing ones to create new products, services, and business models (Han et al., 2021).

Additionally, the Effectuation Theory is another relevant theory that underpins strategic innovation. This theory emphasizes that businesses should focus on taking action and experimenting, rather than predicting and planning, in uncertain environments (Sarasvathy, 2001). In a VUCA world, businesses may not have all the information they need to make perfect predictions, and may need to take calculated risks to create new opportunities. Strategic innovation can help businesses to experiment and create new solutions, and learn from the results to continuously improve their approach.

- Other Relevant Types of Strategic Innovation

There are different types of strategic innovation that can be relevant in the VUCA world. Recent research suggests that organizations can use various types of strategic innovation to adapt to changing market conditions, create new value for customers, and achieve sustainable competitive advantage.

Business Model Innovation: This type of innovation involves creating new ways of delivering value to customers, such as developing new revenue streams, changing the pricing model, or adopting new distribution channels. Recent research by Gao et al. (2021) suggests that business model innovation can help organizations to develop sustainable competitive advantage by creating new market spaces and leveraging existing capabilities.

Product or Service Innovation: This type of innovation involves developing new products or services that offer unique value to customers. Recent research by Mazzola et al. (2021) suggests that product or service innovation can help organizations to create new sources of revenue and differentiate themselves from competitors.

Process Innovation: This type of innovation involves improving the way organizations produce or deliver products or services, such as through automation, optimization, or streamlining of processes. Recent research by Jirathana et al. (2021) suggests that process innovation can help organizations to reduce costs, improve efficiency, and enhance customer satisfaction.

Organizational Innovation: This type of innovation involves developing new structures, systems, or processes within an organization to support innovation and collaboration. Recent research by Zhao et al. (2021) suggests that organizational innovation can help organizations to foster a culture of innovation, encourage knowledge sharing, and improve performance.

Technological Innovation: This type of innovation involves developing new technologies or applying existing technologies in new ways to create value for customers. Recent research by Gao et al. (2021) suggests that technological innovation can help organizations to create new market spaces, enhance product performance, and improve efficiency.

Sustainability innovation: This type of innovation involves developing products, services, or business models that are environmentally or socially sustainable. According to recent research by Rivera et al. (2021), sustainability innovation can help organizations to meet the increasing demands for sustainability from customers, regulators, and other stakeholders. The authors suggest that organizations can use tools such as life cycle assessment or the circular economy to drive sustainability innovation.

Platform innovation: This type of innovation involves creating a platform that connects customers, suppliers, or other stakeholders. Platform innovation can lead to new opportunities for collaboration, co-creation, and value creation. According to recent research by Gawer and Cusumano (2020), platform innovation can help organizations to achieve economies of scale, scope, and network effects, which can lead to sustainable competitive advantage. The authors suggest that organizations can use tools such as APIs, data analytics, or user communities to drive platform innovation.

3.2 Strategic Leadership:

Strategic leadership refers to the process of leading an organization to achieve its strategic objectives. One of the primary theories that underpin strategic leadership is the Transformational Leadership theory, which emphasizes the importance of leaders who can inspire and motivate followers to achieve organizational goals (Bass, 1985). According to this theory, transformational leaders are those who can inspire followers to transcend their self-interests for the good of the organization, and who can provide a vision that inspires and motivates followers to achieve extraordinary outcomes.

Another theory that underpins strategic leadership is the Authentic Leadership theory, which emphasizes the importance of leaders who are true to themselves and their values, and who inspire followers through their genuine and transparent behavior (Avolio & Gardner, 2005). According to this theory, authentic leaders are those who are self-aware, transparent, and act with integrity, which inspires trust and commitment from followers.

Strategic management practices are rooted in the strategic management process model, which consists of three phases: strategy formulation, implementation, and evaluation (Mintzberg, Ahlstrand, & Lampel, 1998). In the VUCA world, strategic management practices need to be agile, adaptive, and flexible to respond quickly to changes in the business environment. This requires a shift from a traditional top-down approach to a more collaborative, iterative, and dynamic approach (Bryson, 2018). The dynamic capabilities theory is also relevant to strategic management practices, as it emphasizes the importance of an organization's ability to learn, adapt, and reconfigure its resources and capabilities in response to changes in the business environment (Teece, Pisano, & Shuen, 1997).

3.3 Incorporating Strategic Innovation into Strategic Management

Strategic innovation plays a critical role in achieving sustainable competitive advantage in a VUCA world. To effectively incorporate strategic innovation into strategic management practices, a framework that comprises four key elements is proposed. The four elements are Strategic Scanning, Idea Generation, Idea Selection, and Idea Implementation.

- Strategic Scanning:

Strategic scanning is the process of identifying and analyzing external and internal factors that could impact an organization's performance. This process involves gathering and analyzing information on industry trends, market changes, and emerging technologies. Strategic scanning helps organizations to anticipate and respond to changes in their operating environment, thereby enabling them to develop innovative strategies that meet changing market demands.

- Idea Generation:

Idea generation involves the creation of new ideas for products, services, or processes that can offer a competitive advantage to an organization. This process is typically initiated by cross-functional teams that bring together individuals from different departments to brainstorm ideas. Organizations can also use external sources such as customers, suppliers, and competitors to generate ideas.

- Idea Selection:

Idea selection is the process of evaluating and selecting the most promising ideas generated in the previous stage. This process involves assessing each idea against a set of criteria such as feasibility, strategic fit, and potential impact. Organizations can use tools such as decision matrices, SWOT analysis, and scenario planning to aid in the evaluation and selection process.

- Idea Implementation:

Idea implementation involves the execution of the selected ideas to create new products, services, or processes that offer a competitive advantage to the organization. This process involves developing a detailed plan that outlines the resources required, timelines, and milestones. Implementation teams are responsible for ensuring that the new products, services, or processes are successfully launched and that they meet customer needs and expectations.

Research has shown that incorporating strategic innovation into strategic management practices can lead to increased competitiveness and long-term success for organizations in a

VUCA world. For example, a study by Javed and Jaffari (2021) found that organizations that adopted strategic innovation practices were better able to respond to market changes and achieve sustained growth. Another study by Li and Li (2021) found that incorporating strategic innovation into strategic management practices led to higher levels of employee creativity and job satisfaction.

3.4 Collaboration and coordination between strategic innovation, strategic leadership, and strategic management practices

Collaboration and coordination between strategic innovation, strategic leadership, and strategic management practices can help to ensure that innovative ideas are effectively developed, selected, and implemented. Strategic innovation can generate new ideas and opportunities for growth, while strategic leadership can provide direction and vision for the organization, and strategic management can provide the resources and processes needed to implement these ideas effectively (Foss & Saebi, 2017).

Collaboration and coordination can also help to ensure that the organization is aligned and focused on achieving its strategic objectives. By working together, these practices can ensure that the organization is moving in the same direction and that all efforts are focused on achieving the same goals (Carnall, 2018).

Effective collaboration and coordination can also help to reduce the risks associated with innovation. By involving different stakeholders in the innovation process, organizations can identify and address potential risks and challenges early on, reducing the likelihood of failure and increasing the chances of success (Gassmann et al., 2010).

To achieve effective collaboration and coordination between strategic innovation, strategic leadership, and strategic management practices, organizations need to ensure that there is clear communication and understanding between these practices. This requires a shared language, shared goals, and a shared understanding of the organization's mission and vision (Kerr & Slocum, 2005).

In addition, organizations need to ensure that they have the right structures and processes in place to support collaboration and coordination. This may involve creating cross-functional teams, developing shared metrics and performance indicators, and establishing regular communication and feedback mechanisms (Birkinshaw & Gibson, 2004).

4. CHALLENGES AND HOW TO OVERCOME THEM

In a VUCA world, implementing strategic innovation and strategic leadership in strategic management practices can be challenging but also presents significant opportunities for organizations to achieve sustained success. This section will discuss the challenges and opportunities that organizations face in implementing strategic innovation and strategic leadership in strategic management practices in a VUCA world, and how these challenges can be overcome.

- **Challenges:**

One of the key challenges organizations face in implementing strategic innovation and strategic leadership is the difficulty of balancing innovation with operational efficiency. Organizations need to maintain operational efficiency to remain competitive, but they also need to innovate to respond to changing market conditions. This can create a tension between innovation and efficiency, which can make it challenging for organizations to adopt and implement innovative strategies (López-Nicolás & Meroño-Cerdán, 2011).

Another challenge is the resistance to change among employees. Implementing strategic innovation and strategic leadership often requires changes to organizational culture, structure, and processes, which can be met with resistance from employees who may feel uncomfortable with the changes. This can make it difficult for organizations to fully adopt and implement innovative strategies (Zheng et al., 2010).

- Opportunities:

Despite the challenges, there are significant opportunities for organizations that successfully incorporate strategic innovation and strategic leadership into their strategic management practices in a VUCA world. One of the key opportunities is the ability to respond to rapidly changing market conditions. By adopting innovative strategies, organizations can respond quickly to market changes and stay ahead of the competition (Javed & Jaffari, 2021).

Another opportunity is the ability to attract and retain top talent. By adopting innovative strategies and promoting a culture of creativity and innovation, organizations can attract and retain employees who value these qualities and who are motivated by the opportunity to work on innovative projects (Li & Li, 2021).

- Overcoming challenges:

To overcome the challenges associated with implementing strategic innovation and strategic leadership, organizations can take several steps.

One approach is to create a culture that values innovation and encourages experimentation. This can help to overcome employee resistance to change and create a more supportive environment for innovation (Hüsig & Kohn, 2011).

Another approach is to involve employees in the innovation process by soliciting their input and ideas. This can help to create a sense of ownership and buy-in among employees, which can help to overcome resistance to change (Kuemmerle, 2002).

By balancing innovation with operational efficiency, overcoming resistance to change, and creating a culture that values innovation, organizations can successfully incorporate strategic innovation and strategic leadership into their strategic management practices and achieve long-term success.

5. RECOMMENDATIONS

Based on the challenges and opportunities discussed, as well as the best practices identified in the case studies, the following recommendations can be made for using strategic innovation and strategic leadership in strategic management practices in a VUCA world:

- Foster a culture of innovation: Organizations should create a culture that values innovation and encourages experimentation. This can help to overcome employee resistance to change and create a more supportive environment for innovation. Leaders can promote this culture by rewarding innovative ideas and encouraging employees to take risks.
- Develop a clear innovation strategy: Organizations should develop a clear innovation strategy that aligns with their overall business strategy. This strategy should include goals and metrics for innovation, as well as a process for generating and evaluating new ideas.
- Use data and analytics to inform decision-making: Use data and analytics to identify opportunities and track progress. This can help to inform decision-making and improve the organization's ability to respond to market changes.
- Embrace continuous learning and improvement: Encourage employees to continuously learn and improve their skills and knowledge. Provide training and development programs that focus on innovation and strategic thinking.

- **Encourage collaboration:** Collaboration between different teams and departments can help to generate new ideas and promote innovation. Leaders should encourage collaboration by breaking down silos and creating opportunities for cross-functional teams to work together.
- **Invest in technology and digital capabilities:** Develop technology and digital capabilities that can help the organization respond quickly to changing market conditions and develop innovative solutions.
- **Develop agile processes:** In a VUCA world, organizations need to be able to respond quickly to market changes. Developing agile processes that allow for rapid prototyping, testing, and iteration can help organizations stay ahead of the competition.
- **Develop leadership capabilities:** Leaders need to have the skills and capabilities to lead innovation and change in a VUCA world. Organizations should invest in leadership development programs that focus on developing these skills, such as creativity, strategic thinking, and change management.

By following these recommendations, organizations can successfully incorporate strategic innovation and strategic leadership into their strategic management practices and achieve long-term success in a VUCA world.

6. CONCLUSION

The role of strategic innovation and strategic leadership in strategic management practices for the VUCA world was examined. The challenges posed by the VUCA world and the need for organizations to continuously adapt and innovate to remain competitive were highlighted.

The paper has discussed the role of strategic innovation and strategic leadership in responding to VUCA challenges, and provided examples of strategic innovation and strategic leadership in response to VUCA challenges. The paper has also emphasized the interdependence of these concepts and the importance of collaboration and coordination between them.

The implications for future research and practice are significant, as organizations must adopt a holistic approach that integrates strategic innovation, strategic leadership, and strategic management practices to remain competitive in the VUCA world. Future research can further explore the relationship between these concepts and how they can be effectively integrated to achieve sustained success.

In conclusion, this paper argues that strategic innovation and strategic leadership are critical components of strategic management practices in the VUCA world, and that organizations must embrace a dynamic and innovative approach to remain competitive. By adopting a holistic approach that integrates these concepts, organizations can successfully navigate the challenges posed by the VUCA world and achieve sustained success.

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The influence of strategic direction and organisational culture on the performance of SMEs in Nelson Mandela Bay

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ABSTRACT

This study investigated the influence of strategic direction and organisational culture on the performance of SMEs in Nelson Mandela Bay (NMB). A total of 190 self-developed and structured questionnaires were hand-distributed to the SME owners/managers in NMB. Only 145 questionnaires were returned and found suitable for this study. Exploratory factor analysis (EFA), Cronbach's alpha coefficient, descriptive statistics, correlation and regression analyses were performed to analyse the data on Statistica software version 14.0. This study found that strategic direction and organisational culture tested a positive and statistically significant influence on the performance of SMEs in NMB. This study recommends that SME owners/managers should implement and sustain an effective organisational culture underpinned by teamwork, communication, active employee involvement and responsibility. Determining strategic direction will require SME owners/managers to develop a compelling vision and mission that will connect employees to where the business wants to be. This study only focused on small business sector as opposed to large businesses in a private and public sector. Future studies should consider including other sectors such as large businesses in a private and public sector. Furthermore, to conduct a comparative analysis study between developed and developing countries to establish if there are any similarities and differences between SMEs on their business performance when strategic direction and organisational culture are investigated.

Keywords: Strategic direction, organisational culture, business performance, SMEs

INTRODUCTION AND BACKGROUND

Studies (OECD, 2016a; Leboa, 2017; Masocha, 2019; Mwale 2020) on small businesses indicate that small and medium-sized enterprises (SMEs) are a cornerstone of socio-economic development in most economies globally (Masocha, 2019). The progressive contribution by SMEs is certainly undisputable to economic growth, reducing poverty and creating employment. SMEs are recognised as largely the form of small business that account for over 90% of all businesses globally, thus SMEs provide the main source of employment estimate to 70% of jobs on average (OECD, 2016a). In emerging countries, SMEs contribute 45% on employment and 33% on the GDP calculations (OECD, 2016a). These figures become significantly higher when the informal small business sector is included (World Bank, 2020). Despite these commendable economic contributions, SMEs are still faced by challenges that have ramifications on their survival and performance such as lack of access to funding, basic management skills, innovation technology and government bureaucracy among other challenges (Quarterly Labour Force Survey, 2021). Scholars (Debeila, 2018; Desta, 2019; Mwale, 2020) argue that for SMEs to be sustainable and experience growth they will need to adapt technological advancement, enhance entrepreneurial skills and widen skills on strategic

management practices through training and development, and for the government to cut down prohibitive terms and conditions that hinder access to financial modalities for SMEs.

Kanyangale (2017) argues that integral to the survival and growth of SMEs are a variety of dynamic abilities that SME owners/managers need to display as individuals, but also as strategic leaders. For instance, it is the role of strategic leaders to determine the strategic direction of the business (Mui, Basit and Hassan, 2018). In essence, strategic leaders play an important role in successful change strategies in organisations they lead, and this influence can mean the difference between failure and success of the business (Maziti, Chinyamurindi, Marange, 2018). Scholars (Mui, et al., 2018; Munyao, Chiroma and Ongeti, 2020) argue that determining strategic direction, organisational culture and organisational performance are one of strategic management challenges to be addressed by strategic leaders. Hitt, Ireland and Hoskisson (2017) postulate that determining strategic direction involves specifying the image and personality the organisation seeks to develop and become overtime. Strategic direction is key to business performance as it is connected with the future of the organisation (Hamdan and Alheet, 2020). It propels the organisation towards its intended goals and objectives (Koros and Ragui, 2021). Strategic leaders are responsible to develop and sustain an effective organisational culture which is the sharing of values and beliefs as well as acceptable behavioural norms by employees in solving organisational problems (Gorondutse and Hillman, 2019). Organisational culture establishes structure for employee conduct in the workplace (Oluwa and Ibrahim, 2021). A strong and effective organisational culture is underpinned by teamwork, open communication, transparency, work autonomy, creativity and responsibility (Pathiranage, Jayatilake and Abeysekera, 2020).

Aketch, Basheka and Bagire (2017) define business performance as the organisation's ability to attain its goals by using resources in an efficient manner. According to Ng'ang'a, Waiganjo and Njeru (2018) business performance involves comparing expected results to actual results, investigating deviations from plans, evaluating individual performance, and examining progress being made towards meeting stated objectives. Zeka (2013) outlines the components that measure the business performance of SMEs namely increased sales turnover, profitability, rates of return on investment, expansion and productivity, decreased operating costs and employee turnover rate. Previous studies on the performance of SMEs were conducted on strategic orientation (Dutot and Bergeron, 2016), strategic planning (Majama and Magang, 2017) and strategic agility (Nyamrunda and Freeman, 2021). However, studies on strategic direction and performance of SMEs is silent. Similarly, previous studies on organisational culture were conducted on innovation levels (Kenny and Reedy, 2006), risk-taking behaviours (Hamdan and Alheet, 2020), total quality management (Sinha and Dhall, 2020) and organisational flexibility (Anning-Dorson, 2021). These studies were not conducted in the contexts and perspectives of South African SMEs. Consequently, this study aims to investigate the influence of strategic direction and organisational culture on the performance of SMEs in NMB South Africa.

RESEARCH OBJECTIVE

This study's primary objective was to investigate the influence of strategic direction and organisational culture on the performance of SMEs. Subsequently, to make recommendations to SME owners/managers based on the empirical findings of this study.

LITERATURE REVIEW

Strategic direction and performance

Mui, et al. (2018) posit that the choice of strategic direction is of vital importance to the organisation's success. Strategic direction refers to developing a long-term vision for the

organisation (Kitonga, et al., 2016), a statement of direction and intent (Ng'ang'a, et al., 2018) which states where the organisation wants to be in future. Munyao, et al. (2020) confirm that one of the key responsibilities of strategic leaders entails setting the direction that an organisation will take through the development of vision, mission, core values and objectives. In addition, strategic direction involves drawing a road map for the organisation's future through a smooth development of a strategic plan (Munyao, et al., 2020). Ng'ang'a, et al. (2018) lay credence that strategic direction is assessed through vision, mission and objectives. Van Rensberg (2019) corresponds that vision and mission are the most important tools to convey strategic direction of an organisation. Munyao, et al. (2020) shared similar view that the tools to determine strategic direction of the organisation includes vision, mission and strategic intent.

Vision is a vital strategic direction tool to drive the organisation towards high performance for without an accurate and viable vision, the whole organisation will be in disarray as it has no power to sustain in this volatile and competitive environment (Mui, et al., 2018). Creating a compelling vision must be the capability of strategic leaders with the ability to articulate the vision clearly and persuasively and the power to translate the vision into viable implementation for its employees to gain ownership of the vision and to achieve it (Mui, et al., 2018). After formulating a vision, Munyao, et al. (2020) argue that it is important for an organisation to clearly stipulate its mission which in essence briefly explains how the vision will be achieved. The purpose of mission is to explain how to get where the organisation wants to be in future (Munyao, et al., 2020). Strategic leaders have a responsibility to explicitly display and explain the mission of their organisations which enables every member of the organisation to understand the overall direction of the organisation (Kitonga, et al., 2016). Previous studies (Mui, et al., 2018; Munyao, et al., 2020; Koros and Ragui, 2021) confirmed a significant positive relationship between strategic direction and business performance of SMEs. Thus, it can be hypothesised that there is a significant positive influence between strategic direction and business performance of SMEs in NMB.

Organisational culture and performance

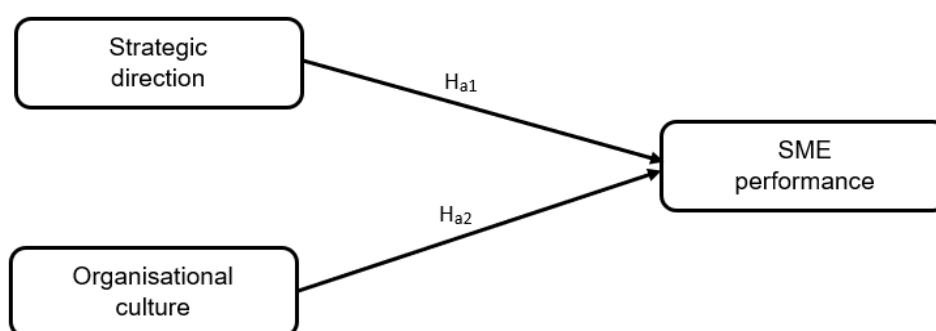
Hitt, et al. (2017) define organisational culture as the complex set of ideologies, symbols, and core values that are shared throughout the organisation and that influence how the organisation conducts business. Hitt, et al. (2017) contend that each organisation's culture is an increasingly important source of differentiation for organisations to emphasise when pursuing strategic competitiveness and above-average returns. Thus, shaping the context within which the organisation formulates and implements its strategies, that is, shaping the organisational culture (Hitt, et al., 2017). According to Pathiranage, et al. (2020), organisational culture is a system of values, beliefs and behaviour patterns which subconsciously drives members of the organisation to make each choice and decision. Other scholars perceived organisational culture as the set of norms, artefacts (Anning-Dorson, 2020), assumptions and routine activities (Aboramadan, et al., 2020) that guide the behaviour of employees (Aketch, et al., 2020) in an organisation. Anning-Dorson (2020) argues that organisational culture has a pervasive influence on employees' attitudes and the direction of the organisation and also defines how the organisation interacts with its key stakeholders. Bani-Hani, Auzair and Amiruddin (2020) lay credence that organisational culture has significant influence in employees' attitudes and organisational processes that enhances business performance in the long run. A strong organisational culture uses open communication and transparency to inspire employees and enhance business performance (Kohtamaki, Thorgren and Wincent, 2016). In an organisation with a culture of open communication, members find it easy to share relevant information across the organisation (Pathiranage, et al., 2020). Miguel (2015) argues that a strong organisational culture is present when strategic leaders in an organisation involve employees in the decision-making process. Furthermore, when employees are engaged in the organisational decision-making process, they build a sense of ownership and obligation (Miguel, 2015). Scholars (Fiordelisi and Ricci, 2014; Pathiranage, et al., 2020) maintain that a strong organisational culture is critical for

motivating the employees of the organisation. Furthermore, motivated employees are the key drivers for achieving organisational goals and enhancing business performance. Gorondutse and Hilman (2019) argue that a positive and high-level organisational culture can make an average employee become a high-performance employee, whereas, a negative and weak organisational culture may make an outstanding individual perform less efficiently, and thus, leads to ineffectiveness. Gorondutse and Hilman (2019) argue beyond that organisational culture has an active role and direct effect on business performance. This study will investigate the influence of organisational culture on the performance of SMEs in NMB.

RESEARCH HYPOTHESIS

Figure 1 presents the hypothetical model proposed for this study.

FIGURE 1: THE HYPOTHETICAL MODEL



The proposed hypotheses for this study are as follows:

Ha1: Strategic direction has a positive influence on the performance of SMEs.

Ha2: Organisational culture has a positive influence on the performance of SMEs.

RESEARCH METHODOLOGY

A positivistic approach (Collis and Hussey, 2009) was adopted for this study using a quantitative research method to hypothesise the positive relationship between strategic direction, organisational culture and business performance of SMEs. The research design for this study included sampling method, questionnaire design and data analysis procedure.

Sampling

The population of this study consisted of SME owners/managers in the NMB region of the Eastern Cape Province. A non-probability sampling method (Wiid and Diggines, 2013) was adopted for this study on the basis that there was no sample frame existing for SMEs in NMB. Babbie (2011:91) confirms that there are times when non-probability sampling is appropriate because a list of members of the population does not exist, or the researcher is unable to develop a sample frame. Thus, this sampling method, and particularly the convenience sampling method (Wiid and Diggines, 2013) was used to select the sample size of this study. Bartlett, Kotrlik and Higgins (2001:08) and Wiid and Diggines (2013:239) recommend that a sample size is determined based on the maximum levels of Likert-type scale (10-point-scale) multiply by the number of statements or questions in the constructs. For this study, there are three constructs namely, strategic direction (6 items), organisational culture (5 items) and

business performance (8 items). Therefore, the sample size of this study is (10 x 19 = 190) SME owners/managers in NMB.

Questionnaire design

A structured questionnaire written in English with closed-ended questions was used to collect the primary data for this study. The questionnaire was divided into two sections namely section A consisted of demographic variables such as work experience, business existence, job title, number of employees, and the nature of industry. Section B consisted of three constructs namely, strategic direction, organisational culture and business performance. All items in these constructs were measured using the five-point Likert scale type such as (1-strongly disagree, 2-disagree, 3-neutral, 4-agree, 5-strongly agree) (Wiid and Diggines, 2013) which were pre-tested before being distributed to 190 SME owners/managers.

Data analysis

A total of 145 returned questionnaires were coded, cleansed and transferred to Statistica software version 14.0 for extensive statistical data analysis. The existing relationship between these variables was determined using the Pearson's Product Moment Correlations. Lastly, the multiple linear regression analysis was performed to test the proposed hypotheses of this study.

EMPIRICAL RESULTS

Response rate

A total of 190 questionnaires were distributed to SME owners/managers in NMB. Only 145 returned questionnaires that were usable for quantitative data analysis in this study. Thus, the response rate was 76.31%.

Descriptive statistics on independent and dependent variables

Table 1 provides the mean scores and standard deviations of the research variables.

TABLE 1: DESCRIPTIVE STATISTICS OF THE RESEARCH VARIABLES

Variable	N	Mean	Std. Dev.	Percentage (%)		
				Disagree	Neutral	Agree
Strategic direction	145	3.790	0.639	8.05	26.32	65.63
Organisational culture	145	3.924	0.616	5.24	30.90	63.86
Business performance	145	2.954	0.597	36.55	31.55	31.90

The variable organisational culture reported a mean score of 3.924 which means that respondents agreed (63.86%) that organisational culture influences the manner in which their small businesses operate, and employees feel motivated when included in the decision-making process. The variable strategic direction had a mean score of 3.790 which means that most respondents agreed (65.63%) that they have a clear and well-articulated long-term vision

for their small businesses and how they will realise it through their mission and mobilised resources. Business performance reported a mean score of 2.954 in which respondents maintained a polarised view whether their small businesses performed well over past few years in terms of sales turnover, growth, and profitability among other measures of business performance. Only 31.90% of respondents who agreed that their small businesses performed well, while 36.55% disagreed with the statement, and 31.55% did not express their views or opinions.

Validity and reliability analysis

Table 2 presents validity and reliability analysis results. Exploratory factor analysis (EFA) and Cronbach's alpha (CA) confirmed the validity and reliability of the measuring instrument used in this study. Factor loadings with a value of 0.50 and above (Hair, et al., 2014) and CA of 0.60 and above (Wiid and Diggins, 2013) were considered for this study.

TABLE 2: VALIDITY AND RELIABILITY ANALYSIS RESULTS:

Factor	Items	Explained variance	Factor loadings	Inter-item correlation	Standardised CA
Strategic direction	6	3.876	0.654 - 0.916	0.583	0.882
Organisational culture	4	3.273	0.712 - 0.928	0.729	0.901
Business performance	8	4.663	0.559 - 0.848	0.521	0.892

The factor strategic direction had factor loadings between 0.654 and 0.916 (6 out of 6 items) with the CA of 0.882 to confirm validity and reliability of the construct. The factor organisational culture loaded only 4 out of 5 items between 0.712 and 0.928 with CA of 0.901, thus this construct is valid and reliable. The factor business performance had 8 out of 8 items with factor loadings between 0.559 and 0.848 with CA of 0.892 which confirmed the validity and reliability of the construct. Thus, concluded that the measuring instrument of this study is valid and reliable.

Pearson's Product Moment Correlations

Table 3 presented a correlation between the variables of this study.

TABLE 3: CORRELATION ANALYSIS

	Strategic direction	Organisational culture	Business performance
Strategic direction	1.000		
Organisational culture	0.230	1.000	
Business performance	0.313	0.233	1.000
(Correlations are significant at $p < .05000$) N=145			

The correlation analysis shows that a moderate positive relationship exists between strategic direction and business performance ($r = 0.313$). This implies that any positive changes in strategic direction will possibly result to an increased performance of SMEs by 31.30%. Organisational culture reported a weak positive relationship with business performance ($r =$

0.233). This means that any positive changes in organisational culture will lead to an increased performance of SMEs by 23.30%. Thus, this study concluded that strategic direction and organisational culture had a positive relationship with the business performance of SMEs.

Multiple linear regression

Table 4 presents the results of the multiple linear regression analysis of this study.

TABLE 4: REGRESSION SUMMARY

Dependent variable: Business performance				
Independent variables	Standardised Beta (B*)	Std. Err. Beta (B)	t-value	p-value
Strategic direction	0.273	0.080	3.396	0.000 *
Organisational culture	0.170	0.080	2.108	0.036 *
(Statistically significant if *p<0.05; **p<0.01; ***p<0.001)				
R ² = 0.125	Adjusted R ² = 0.113			

As presented in table 4, it is evident that strategic direction (0.000; p<0.05) and organisational culture (0.036; p<0.05) had a positive and statistically significant relationship with business performance of SMEs. This implies that any positive changes in strategic direction (B* = 0.273) and organisational culture (B* = 0.170) may lead to an increased business performance of SMEs. In other words, small businesses that set out and communicate clear long-term vision and mission, and embed strong and effective organisational culture for the business may lead to an increased business performance of SMEs. Furthermore, the adjusted R² was 0.113 meaning that 11.30% of business performance in SMEs in NMB is accounted for by strategic direction and organisational culture. The remaining 88.70% is accounted for by other factors.

Evaluation of hypotheses

Table 5 presents the evaluation of hypotheses after the regression analysis was performed.

TABLE 5: EVALUATION OF HYPOTHESES POST REGRESSION ANALYSIS

Hypothesis	Statement	Conclusion
H _{a1}	Strategic direction has a positive and statistically significant influence on the performance of SMEs	Accepted
H _{a2}	Organisational culture has a positive and statistically significant influence on the performance of SMEs.	Accepted

The research objective of this study was to investigate the influence of strategic direction and organisational culture on the performance of SMEs. The empirical results of this study have shown that there is a positive and statistically significant relationship between strategic direction and business performance of SMEs. Furthermore, there is a positive and statistically

significant relationship between organisational culture and business performance of SMEs. Thus, the first part of the research objective was achieved.

DISCUSSION AND RECOMMENDATIONS

This study revealed that the majority of SME owners/managers (63.86%) in NMB agreed that organisational culture influences the manner in which their small businesses operate. This study found that organisational culture had a positive and statistically significant relationship with the performance of SMEs in NMB. This finding was consistent with prior studies (Aketch, et al., 2017; Gorondutse and Hilman, 2019; Pathiranage, et al., 2020; Aluwa and Ibrahim, 2021). This relationship suggests that in order to sustain a strong and effective organisational culture, SME owners/managers should implement an organisational culture that is underpinned by the spirit of teamwork, communication, openness, work autonomy, commitment and employee involvement (Aboramadan, et al., 2020). This study also confirmed that 13.30% of business performance of SMEs in NMB is accounted for by the organisational culture among other factors (86.70%).

This study revealed that there was a positive and statistically significant relationship between strategic direction and the performance of SMEs. This outcome corresponds with the findings from previous studies (Ng'ang'a, et al., 2018; Munyao, et al., 2020; Koros and Ragui, 2021). This finding suggests when developing a compelling clear long-term vision and mission and creating sense of direction for the business, while mobilising resources to fulfil set goals and objectives, this may lead to an increased business performance of SMEs. Thus, it is recommended to SME owners/managers to develop a clear vision and mission that inspires employees to commit to the main purpose of the business and where it wants to be in the near future. This study also revealed that 27.30% of the business performance of SMEs in NMB was accounted for by strategic direction among other factors (72.70%). Determining strategic direction is mainly the sole responsibility of strategic leaders in an organisation. However, it is recommended from this study, that all employees within an organisation should be engaged in decision making processes aimed at defining the future of the organisation and the set mission to get there. Pathiranage, et al. (2020) argue that when employees feel engaged in the organisational decision-making process, they tend to build a sense of ownership and obligation and thereby loyalty and commitment towards the organisation. This study found that there was a polarising view from the respondents whether their businesses performed well over the past few years. In total, 31.90% of respondents agreed that their small businesses have performed well over the past few years, while 36.55% disagreed with the statement and 31.55% of respondents did not express their opinion. The second part of the research objective was to make recommendations based on the empirical results of this study. This discussion highlighted the areas of managerial implications for SME owners/managers. Thus, this second part of the research objective of this study was achieved.

CONCLUSION

This study sought to investigate the influence of strategic direction and organisational culture on the performance of SMEs in NMB. The empirical review of this study confirmed that strategic direction and organisational culture had a positive and statistically significant influence on the performance of SMEs in NMB South Africa. This implied that any positive changes in strategic direction and organisational culture would lead to an increased business performance of SMEs. This study revealed that 13.30% of the business performance of SMEs in NMB was accounted for by organisational culture. The findings of this study has shown that organisational culture is still a critical resource that can be used to enhance business

performance. However, as noted due to diverse measures of business performance its clear contribution especially within the small business sector is still limited due to different measures adopted in different studies. This study also confirmed that strategic direction exerts a positive influence on the performance of SMEs. In other words, 27.30% of the business performance of SMEs was accounted for by strategic direction. It was recommended that SME owners/managers should develop a compelling clear long-term vision and mission, goals and objectives and create a sense of direction for the business, this may lead to an increased business performance in SMEs. While this study makes important contribution to the current debate, the interpretation of the results should be undertaken while considering the following limitations. Firstly, this study only focused on one sector, which was small business sector raising concerns about the validity of the findings within other sectors. Thus, future studies will need to include other sectors such as large businesses in a private and public sector. Secondly, this study was conducted in a developing country from a South African small business' perspective. Future studies will need to explore a comparative analysis of the same study in other developing countries to establish any similarities and differences between SMEs. Thirdly, this study followed a positivistic approach using the quantitative research method. Future studies will need to investigate this study following an interpretivism approach using the qualitative research method.

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‘Blind visions, and no reasons or, a management vexation P3: parochiality, prosaicism and platitudes

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ABSTRACT

In South Africa, the scholarly discipline of management is pervaded by the ideology of capitalism and positivist thinking. This leaves little room for questioning the validity of the assumptions our discipline is based upon. Consequently, this stifles opportunities for progress, new possibilities and pioneering.

Through critically reflecting upon the past five years' proceedings of a leading South African management conference, this paper sought to ascertain the degree to which capitalist thought and positivist method pervade management scholarship in South Africa. Furthermore, the study also assesses the themes presented at this conference which challenge the boundaries of our thinking, and therefore represent progression and new possibilities. It was found that although quantitative work still dominated, qualitative work was on the rise. There was evidence of topics that challenge thinking, but these are still proportionately small and do not seem to engage topics head on, but rather deal with symptoms of bigger, more pressing issues.

INTRODUCTORY COMMENTS

In 2021, I wrote a paper for the 32nd SAIMS conference which challenged mainstream management scholarship in South Africa. It was inspired by the conference theme: 'Re-imagining management research: Past insights for future foresights'. For me, that conference theme was open to critique. Rooted in a heavily positivist tradition, South African management scholarship provides little room to manoeuvre beyond the positivist norm, which makes imagining – let alone re-imagining – a difficult task. In 2023 we again have an interesting SAIMS conference theme: 'Management Potential P3: Possibilities, Pioneering and Progress'. As conference themes go, there is nothing wrong here, but, as in 2021, a dichotomy exists. In short, the pervasiveness of capitalist thought has created a situation where management has become dominated by positivist logic, and dictated to by capitalist ideology to such a degree that it is self-serving and functions almost in a bubble, with little room for true novelty or revolution of thought beyond incremental advances which we perceive as progression of the discipline.

This reminds strongly of the prisoners in Plato's Allegory of the Cave. In Plato's Cave (Goldman, 2021; Lahav, 2016), chained prisoners live their lives in the confines of a cave, chained to a wall. From behind, images are cast on the cave wall for the prisoners to see. They are produced by passing objects in front a large fire that is continually stoked behind the prisoners. The objects are made and paraded in front of the fire by the protectors of the cave.

The prisoners see the projections and believe this to be reality, as they do not know better (Goldman, 2021). To extend this metaphor to the management discourse, we the management scholars are these prisoners. The images projected is our discourse we are exposed to. The images are produced by the protectors of the cave, and they want to show the prisoners specific images. In the same vain, the protectors of our cave in the management world are capitalism, neo-liberalism, and positivism (Goldman, 2021). These 'protectors' ensure that our discourse takes on a certain guise. They determine the lens through which our discipline is viewed, influence pivotal and topical debates, sway opinion, and influence traditions of knowledge creation.

The danger is that the protectors are, in fact, brainwashing the prisoners, leading them to believe that the reality presented to them is the only reality that exists, and that no other reality is possible. Although this is an extreme position, one could argue that the scholarly discipline of management is not far from such a state, especially in South Africa. Capitalism has been so firmly entrenched since the latter half of the 20th century, especially through South African higher education structures (Ruggunan & Spiller 2018), that there is little room for venturing beyond these parameters.

THE RATIONALE BEHIND THE STUDY

From the above, this study aims to ascertain the degree to which capitalist thought and positivist method have pervaded management scholarship in South Africa. One might ask why it would be necessary to ascertain this at all? Surely there would be reason why a particular discourse would be viewed as dominant, and others as 'peripheral'. Dominance would not be achieved in a discourse if there was no merit in what it wanted to achieve and how it operated as a knowledge creation system. Yet, as scholars, we need to understand the circumstances that lead to a discourse attaining dominance, as its very pervasiveness creates a situation in the discourse where things start to be taken for granted. The underlying assumptions of the discourse are no longer questioned (Kociatkiewicz, Kostera, & Zueva, 2021). In so doing, the stature of the discourse becomes a habitus (Ehrensals, 2016). The situation is compounded by the notion that discourses are underwritten by certain ideologies, and thus provide ideologies with a mechanism to perpetuate and sustain themselves (Kociatkiewicz et al., 2021)

Therefore, if one concedes that the discourse of management is stooped in western capitalist ideology, then it would be fair to consider if management scholarship in South Africa has progressed, is pioneering, and has explored new possibilities beyond its capitalist precincts. To this end, this paper evaluates the conference proceedings of a leading South African management conference, as a showcase of South African management scholarly work, over a five year period (2018 to 2022), bearing in mind there was no 2020 conference due to Covid-19. These proceedings were analysed with the objective of ascertaining which themes come through in papers contained in the conference proceedings that challenge the boundaries of our thinking, and therefore represent progression, and new possibilities. Papers dealing with uncomfortable issues can also be seen as challenging the boundaries of conventional thinking, and therefore also fall within this ambit. It is fair to ask what would represent themes that could be viewed as uncomfortable issues, and challenge the boundaries of our thinking, as this could be highly subjective? One should concede that there would be no agreement on what this would be, at the same time, one should strive for an operational definition. Although the operational definition could be debated, it would provide a starting point to benchmark themes against.

In providing an operational definition, a good place to start would be topical events that have transpired and environmental forces that have come to being during the timeframe represented, and how these have found their way into the management discourse and challenged convention. For the period of 2018 – 2022 one can think of factors such as Covid-19, disruptive change (and associated effects on, for example, supply chains), and the proliferation of thinking around 4IR and use of technology. Global trends, such as the UN Sustainable Development Goals, heightened ecological concerns and the call for more sustainable production and consumption and the effect this has on organisational processes also represent areas of possibility and progress in our discipline. Lastly, local factors, such as the ongoing call for decolonisation present further possibilities to extend thinking beyond current frontiers.

A LITERATURE OVERVIEW.

Steinberg and Kincheloe (2010) argue that modern democratic society is acculturated and regulated to be comfortable with relations based on domination and subordination. These relations entail a relationship between democracy and capitalism that is not always as compatible as it seems (Hall, 2022; Rozhkova, 2020). Whilst both grant citizens freedom of choice, the power to displace governments, and liberty to engage in business endeavours, democracy pursues an equal distribution of political power, whereas modern capitalism endorses the principle of 'survival of the fittest' (Khakimov, 2008). This creates tension between capitalism and democracy, which is expressed in the different relations pertaining to equality and inequality (Merkel, 2018). The inequality present in most forms of capitalism is apparently necessary to yield profits, but is incompatible with democratic doctrines of equal rights and political participation (Hall, 2022). Despite this, democracy and capitalism do coexist. Moreover, capitalism has attained structural power in modern democracies and influence policy, if only up to a point, as governments curb capitalist power dominance with and regulation (Hall, 2022).

This structural power leads to Steinberg and Kincheloe's (2010) contention that modern democratic society has become comfortable with arrangements that result in domination and subordination, as opposed to equality and interdependence. These arrangements, one can see, are brought about through this tension between democracy and capitalism, where capitalism, through structural power, endeavours to dominate labour and the market as far as possible, while democratic government enforces policy and regulation to protect labour and the market as far as possible. Yet, in the process, civil society loses some of the liberties democracy strives to uphold. The nett result, thus, is that democratic society is not as egalitarian as we sometimes consider it to be (Neckel, 2020).

The structural power that capitalism has attained has allowed it to put mechanisms and governance structures in place to perpetuate itself as an ideology (Means, 2018). In so doing, it creates a contrived sense that the social system they are part of is rational and inevitable (Nuryatno, 2003). This bears a striking resemblance to the notion of the slaves in Plato's Cave being shown images by the Protectors of the Cave which do not necessarily reflect the exact nature of reality, but rather reflects a reality that fits the Protectors' personal agenda (Lahav, 2016). In order to perpetuate itself, to spread further, and to become even more entrenched as a pervasive economic system, capitalism would like to be viewed in a certain way. Obviously, it would like to be seen as a 'good' system, one that has more answers to our economic challenges than other economic systems seem to have (Dilli, Elert & Herrmann, 2018).

Through the structural power capitalism possesses in western democracies, training and educational policies can be influenced, and management curricula are no exception (Hall, 2022; Ehrensals, 2016). In the western world, it would appear as though management curricula have converged to the point where they all convey the same rudimentary message, established upon American and European principles (Kociatkiekicz, et al, 2021). In South Africa, the situation is no different (Goldman, 2021), with management curricula profoundly capitalist in their ideology (Ruggunan & Spiller, 2018).

Capitalism also exhibits a strong connection with the Positivist tradition (Riley, Emigh & Ahmed, 2021; Ruggunan, 2016), and consequently, management scholarship in the western world is dominated by Positivist tradition and method (Nkomo, 2015). South Africa is no exception, and any form of scholarship outside of the capitalist orientated 'mainstream' is virtually non-existent (Goldman, 2020). On the surface, this might not seem problematic at all, but let's probe a bit further.

A glaring issue has to do with locality. As African, and more specifically South African, scholars of management, we should be concerned with trying to find (South) African solutions to (South) African management challenges. However, it would seem as though our western capitalist-oriented schooling in business and management has left little room for that. It is as if we tend to be located in Africa, but we seem not to be of Africa, referring to our thinking about our discipline, which still remains markedly western, and almost removed from the African context (Goldman, 2021).

Secondly, a point of view that has no counter position remains unchecked, and its assumptions are taken for granted and never questioned. Much the same is true as far as discourses with no counter position are concerned. In management, the realm of Critical Management Studies (CMS) provides the counter-argument, in a sense, to the mainstream (Goldman, 2016a). CMS challenges the pervasiveness of capitalist ideology in the scholarly endeavour of management and is cynical of positivist methods of knowledge production (Goldman, 2016a). CMS scholars see organisations as vehicles of the capitalist ideology, used to perpetuate the notion of capitalism. They thus view organisations as inherently exploitative and oppressive to workers, possessing an uneven balance of power (Prasad, 2015). Proponents of CMS are highly sceptical of mainstream management literature (Goldman, 2016a), seeing it as another mechanism that perpetuates the capitalist doctrine. CMS scholars, consequently, strive for alternate conceptions of reality in management studies, which implies looking at different knowledge areas as well as methods of knowledge production (Sousa, 2010).

Although CMS has spread since the seminal work of Alvesson and Willmott (1992), it is still very much a peripheral discourse in management. Despite this, CMS is an established tradition in Europe (mainly England and Scandinavia), South America, as well as Australia and New Zealand. However, in South Africa, CMS is very much underdeveloped, and less than a decade ago was virtually unknown amongst management scholars in South Africa (Goldman, 2016b). This leads to a situation where the 'watchdog' function played by CMS as a peripheral, critical discourse, is non-existent, allowing the 'mainstream' to literally go unchecked. Surely, if one speaks about 'new possibilities' and the old adage of 'thinking outside of the box', a situation where the mainstream goes unchallenged is not conducive to this.

But how, does CMS challenge mainstream thinking and act as a 'watchdog'? For one, CMS scholars share an innate belief in the fallibility of mainstream management thinking and capitalist ideology that permeates it. Case in point is the deification of the figure of the entrepreneur. In the mainstream conception, the entrepreneur is often viewed as the embodiment of the triumph of capitalism, and is revered (Coste, 2020; Farny, Hannibal, Frederiksen & Jones, 2016). CMS scholars are sceptical of such claims, as it presents an unrealistic 'pipe-dream', and diverts attention away from real, pressing issues. In this scenario, the mainstream, popular narrative is one of the entrepreneur as the developer, revitaliser and 'saviour' of the economy, but in many instances, it has been shown that entrepreneurship development and training alone is not going to stimulate the economy, and that the entrepreneur is not the saviour of the economy as capitalist ideology would want us to believe (Laine, 2017).

Furthermore, CMS is also mistrusting of the mainstreams' strategies of knowledge creation (Goldman, 2020). As mentioned earlier, western capitalism is associated with positivism, and indeed, it is evident that the dominant knowledge production paradigm in management studies is positivistic. As CMS is borne out of the Critical Theory tradition of dialectical argumentation, and reasoning, it recognises the existence of multiple ways of 'coming to know' and dispels the notion of a singular reality (How, 2003). In contrast, positivism venerates the scientific method, and therefore recognises this as the only plausible and possible truth, thus discounting all other ways of coming to know as invalid (Park, Konge & Arlino, 2020), resulting in what Sousa (2010) terms 'methodological prejudice'. As a result, positivists do not participate in reasoned, metatheoretical discussions, as these are seen as useless exercises because metatheory is taken for granted (Park et al., 2020; Kalelioglou, 2020).

Also, CMS exhibits an astute awareness of the inconsistencies and contradictions that permeate mainstream thinking. Case in point is the current debate around de-growth. This debate attacks the capitalist assumption of unbounded growth fuelled by limitless consumption, a result of our culture of consumerism (Banerjee, Jermier, Peredo, Perey & Reichel, 2021). De-growth proponents argue that the assumption of unbounded growth needs to be relooked at and replaced with a more realistic dictum, as environmental realisms and resource constraints present a picture of reality where current trajectories of growth cannot be sustained (Arsel, 2020). Yet, it is as if the notion of growth is so central to the capitalist conviction that any other picture is inconceivable (Chatzidakis, Larsen & Bishop, 2014).

Lastly, CMS recognizes the political, social and historic context of management (Goldman, 2021).

Positivists, in contrast, insist on values such as impartiality, neutrality, and autonomy in scholarship (Kalelioglou, 2020), and do not recognise the political, social and historic realities that management functions within (Alvesson & Willmott, 2012). On the other hand, CMS recognises the value laden reality that management operates in, and that context is of greater importance than the mainstream thinking acknowledges. In this regard, it is striking to realise how little scholarship in management is devoted to management history, or how little scholarly work exists on how Dutch colonial rule, British colonial rule, and the apartheid regime, effected business and management practices in South Africa.

In conclusion, CMS recognises the fallibility of the capitalist doctrine, distrusts positivist inquiry that pervades management research, and exhibits an overall awareness of the paradoxes that are borne out of the mainstream ideology and encountered in mainstream management

thinking. It is a branch of the overall discourse of management that sorely needs to be expanded in South Africa. If a critical tradition is not established and nurtured beyond current levels, South African scholarship is likely to become complacent. There will be nothing to counterbalance the mainstream, nothing to constantly question and keep a modicum of Socratic inquiry alive.

METHODOLOGY EMPLOYED IN THE STUDY

As the study aims to ascertain the extent to which capitalist thought and positivist method have pervaded management scholarship, and how this influences progress, pioneering and new possibilities in the management discourse in South Africa, a critical stance is adopted in this paper, drawing from pure Critical Theory, and CMS as basis for appraisal and critique. Central to CMS and Critical Theory is a critique of capitalism as a flawed and unjust system responsible for many societal dilemmas. Furthermore, both are fervently anti-positivist, as Critical Theorists aim to uncover reality through reasoned argumentation, which is the basis of the dialectical method (How, 2003), rather than presenting factual information void of social, historical, cultural, or political context.

Critical Theorists employ an array of methods in their research endeavours, but central to their research, as alluded to above, is the dialectical method (often referred to as the reasoned dialectical argument), which is a non-empirical method, culminating in new conceptualisations of existing ideas. Some call this

‘theory building’ research. The dialectic argument is often complimented, with empirical data. However, it is important to note that the criticality lies in the interpretation of the data and how it complements the dialectic argument. In Critical Theory research, the data itself does not form the basis of the argument.

In this study data were sourced from the four conference proceedings from a leading South African management conference for the five year period 2018 – 2022, with cognisance that there was no 2020 conference due to Covid-19. The titles, abstracts, and key words of all the competitive paper published in these proceedings were scrutinised and subjected thematic analysis. More specifically, Creswell’s 4 stage process of qualitative data analysis guided the analytical process (Creswell, 2009):

Step 1. Organise and prepare data: The titles, abstracts and key words of all the competitive papers contained in the relevant Conference Proceedings were printed out.

Step 2. Peruse through the data to gain an overall understanding of topics covered in each paper and to develop themes based on these topics.

Step 3. Begin a detailed analysis with a coding process: Here, the emphasis is on describing, classifying and interpreting. This was the start of the coding process, and entailed:

- Reading the titles, abstracts and key words thoroughly, noting the topics forthcoming.
- Listing all topics. Similar topics were grouped, resulting in common, unique, and leftover topics.
- Descriptive words from the printed material were identified for each topic, making them categories.

Categories were also reduced by regrouping and merging topics that related to one other.

Step 4. Use a coding process to generate descriptions: This involves displaying generated data, based on the themes appearing as the major findings. This means interpreting what the data uncovered.

FINDINGS AND DISCUSSION

The analysis of the proceedings will present some quantitative data pertaining to each of the proceedings. The purpose of this data is to present a picture of the nature of methodological approaches utilised by authors. Thereafter, more qualitative analyses will be presented of the types of themes authors are delving into that can be viewed as challenging the boundaries of our thinking.

2018 Proceedings

The Organising Committee of the 2018 conference purport that 63 Competitive Papers (CPs) were contained in the proceedings, but it seems as though 65 CPs were included. These proceedings also included Work-In-Progress (WIP) abstracts, although these are normally only a page or two, and easily distinguishable from CPs. It is not clear if there were two WIP papers written in CP format, or if there was a miscount of the CPs, but this was checked four times. B that as it may, In term of methodological orientation, the following was found pertaining to the 2018 proceedings:

	Total	Quantitative papers	Qualitative papers	Mixed methods papers	Conceptual papers
Number	63	46	10	5	4
Percentage	100	70.77	15.38	7.69	6.15

Quantitative/positivist orientated work dominated, with almost three quarters of the CPs utilising such methodologies. Notably, 17 of these 46 quantitative papers did not justify the use of a quantitative methodological approach. It can be argued that this is symptomatic of the 'symptomatic prejudice' of positivism (How, 2003), disregarding other epistemologies and forms of 'coming to know'. In the positivist conception, there is only one objective 'truth' (Kalelioglu, 2020), and therefore it is not necessary to justify its usage. Two qualitative papers also did not justify their usage of qualitative/Interpretive method. This is atypical of qualitative scholarship. Also, of the 10 qualitative papers, four were what I term 'quasi-qualitative', referring to a paper being framed as qualitative/Interpretive, but upon inspection, the paper contains quantitative devices such as frequency distributions, bar charts, graphs and pie charts to represent data. It was evident that these were efforts from traditionally quantitative/positivist scholars to 'cross-over' into qualitative scholarship.

Closer scrutiny of the mixed methods and conceptual papers found that one of the papers framed as mixed methods, was purely quantitative. Two mixed methods papers were of a sequential mixed methods design, meaning that the qualitative component was used to develop a questionnaire, which was then distributed to a sample. Such sequential mixed method work seems to be Positivistic in nature. As for the conceptual papers, all four of them were basically literature reviews, which does not make them truly conceptual, as true conceptual work should at least involve the Hegelian dialectic (Stone,

2014), where a position (thesis) and its counter-position (antithesis) are resolved by presenting a higher level of truth through reconstructing current ideas in novel ways (synthesis).

In terms of content, CPs in the 2018 proceedings did seem to touch upon some locally as well as globally relevant trends and issues. Below is a list of topics identified from the 2018 proceedings that are seen to challenge the boundaries of our thinking, as well as grappling with uncomfortable issues:

- 4IR
- Sustainability
- Organisational justice
- “Green” issue in marketing
- Ecological issues (supply chain) (3)
- Racial diversity (3)
- Race equity
- Afro-pessimism (2)

* (numbers in brackets denote the number of papers touching upon these issues)

2019 Proceedings

From the 2019 proceedings, the following was found in terms of methodological orientation of the CPs:

	Total	Quantitative papers	Qualitative papers	Mixed methods papers	Conceptual papers
Number	52	34	15	1	2
Percentage	100	65.38	28.85	1.92	3.85

Again, quantitative/positivist oriented work dominated, but it was not as dominant as 2018, as qualitative/interpretive work rose to just under 30%. Closer inspection revealed that some of the qualitative work was not as ‘qualitative’ as it seemed. One paper was actually a literature review, whilst another that was framed qualitative was a literature review with hypotheses extracted from the literature review, thus actually making it a positivistic oriented piece of work.

Mixed method and conceptual papers were lower than in 2018. Both papers positioned as ‘conceptual’ did not present a Hegelian dialectic, with one of them being a straight out literature review, and the other being a literature review culminating in the presentation of hypotheses and a conceptual model. Again, this paper seemed grounded in positivistic thought. Papers without methodological justification were still prevalent, although lower than in 2018, with five of the quantitative papers and one qualitative paper not justifying their methodological orientation. Three ‘quasi-qualitative’ papers were identified in 2019 proceedings, although this is proportionately less than 2018.

As far as content is concerned that challenges thinking, deals with uncomfortable issues, and presents possibilities, the following topics were identified:

- Sustainability (3)
- Disruptive technology and change
- Technology adoption
- Ecological and environmental issues (3)
- Race equity
- Corruption

- “Green’ issues in management (2)
- Gender equality (2)

* (Items in red denote topics encountered in previous proceedings)

The number of papers deemed to deal with challenging or uncomfortable issue are roughly the same as in 2018, but there were fewer CPs in the 2019 proceedings, which represents a higher proportion.

2021 Proceedings

After the decision not to host the conference in 2020, the 2021 conference was hosted virtually. The number of CPs included in the proceedings dropped even further, which might be indicative of the immense work pressures academics encountered during 2020 and 2021. The table below reflects the methodological orientation of the CP’s contained in the 2021 proceedings:

	Total	Quantitative papers	Qualitative papers	Mixed methods papers	Conceptual papers
Number	46	28	14	0	4
Percentage	100	60.87	30.43	0	8.70

The upward trend of qualitative/interpretive work continued in 2021, reaching just over 30% of the total number of CPs. No mixed methods papers were contained in the proceedings, and conceptual work rose to the same level seen in 2018. ‘Quasi-qualitative’ work was still encountered, but the downward trend continued, with two papers being deemed as such. Papers with no methodological justification were still encountered, and in much the same proportion as in 2019, with four quantitative papers and one qualitative paper not justifying their choice of methodology.

In terms of the content of the papers, the following was found in terms of content that presents possibilities to grow our discourse, challenges the boundaries of our thinking as management scholars, and deals with uncomfortable issues that could be turned into avenues of real progress:

- Sustainability (3)
- Digitalisation
- Covid-19 (2)
- “Green’ issues in HR and Tourism
- Ecotourism
- Workplace stress
- People with disabilities
- Executive remuneration
- Unequal power relations
- Critical theory

- Inclusive economies
- BBBE

It is evident that the range of topics is greater than in 2018 and 2019, as is the number of papers dealing with these types of issues. As the total number of CPs had dropped even further from 2019, these issues are proportionally higher in the 2021 proceedings.

2022 Proceedings

In 2022, the number of CPs increased to more or less the same number as 2018. Quantitative/positivist dominance persisted and rose slightly in the 2022 proceedings, whilst qualitative/Interpretive work was down in comparison to 2021 to just under 30% again, as can be seen from the table below:

	Total	Quantitative papers	Qualitative papers	Mixed methods papers	Conceptual papers
Number	64	41	18	3	2
Percentage	100	64.06	28.13	4.69	3.13

There were three instances of 'quasi-qualitative' work in 2022, and quantitative papers with no methodological justification rose to six, but this was still proportionally more or less the same as 2019 and 2018. One qualitative paper with no methodological justification, as well as a mixed method paper with no methodological justification, were also encountered, although this mixed-method paper can be framed as positivist. Of the mixed method work contained in the proceedings, two are sequential mixed methods studies that can be classified as positivist. One of the conceptual papers represents a literature review, again, devoid of a Hegelian dialectic that would typify true conceptual work.

In terms of thought provoking content that could progress the discipline by tackling uncomfortable issues and extend the boundaries of our thinking, the following topics were encountered in 2022:

- Green issues in management and VUCA world (4)
- supply chains (2)
- Disruption
- 4IR
- Complexity
- Covid-19 (7)
- Ethical marketing
- Artificial intelligence
- SDG's

These issues reflect more topical issues of the day, but in proportion to the total number of CP's, seem fewer than 2021, which seems a little odd, given the times. However, it is interesting to note the amount of papers that dealt with Covid-19 related issues rose sharply in 2022, as research into the topic intensified.

On the whole...

Over the five year period, the situation looks as follows in terms of methodological orientation:

	Total	Quantitative papers	Qualitative papers	Mixed methods papers	Conceptual papers
Number	227	149	57	9	12
Percentage	100	65.64	25.11	3.96	5.28

Although on average quantitative/positivist work dominates at this management conference, the trend line indicates a slight downward trend in quantitative papers and an upward trend in qualitative work. Mixed method and conceptual work seems to fluctuate, although the framing of mixed method and conceptual work is problematic. From both authors and reviewers point of view, there does not seem to be a full comprehension of mixed method and conceptual work. This, and the persistent occurrence of 'quasiquantitative' work is symptomatic of the pervasiveness of positivist method in management scholarship. It seems as though the majority of management scholars are schooled and trained in the quantitative tradition, and many of these scholars willingly 'migrate' to the qualitative realm, but miss the finer nuances that training in the qualitative tradition inculcates in qualitative scholars. Although this is not insurmountable, it does filter through until experience curve effects have been overcome.

In terms of topics addressed, it is evident that there is potential when looking at the range of topics presented that present possibility to be pioneering through challenging the boundaries of our thinking, and that could progress our discipline further through grappling with uncomfortable issue. Themes seemed to gravitate toward five distinct clusters, as can be seen from the table below:

Cluster 1 – 4IR and Technology Consists of the following topics:

- 4IR
- Disruptive technologies and change
- Technology adoption
- Digitalisation

Cluster 2 – Sustainability & the environment Consists of the following topics:

- Green issues in marketing, management, HR, tourism, and supply chain management
- Ecological issues in supply chain management
- Ecotourism
- SDG's

Cluster 3 – Wicked complex problems Consists of the following topics:

- Covid-19
- Disruption
- VUCA world

Cluster 4 – Organisational power dynamics Consists of the following topics:

- Executive remuneration
- Unequal power relations
- Workplace stress

- Organisational justice

Cluster 5 – Redressing inequality Consists of the following topics:

- Racial diversity
- Gender equality
- Inclusive economies
- Race equity
- People with disabilities
- BBBEE

Although this is heartening, and does represent something in terms of ‘possibilities, progress and pioneering’, it is, at the same time slightly vacuous and superficial. If one looks at Cluster 1, the immediate question is why are there so few papers dealing with this? Whether one buys into the idea of 4IR or not (Schwab, 2017), there is vast potential for research here. The same applies to Cluster 5. Our political agenda has been dominated for the best part of three decades by redressing inequality, yet, precious little finds its way into scholarship in our discourse. Again, this is symptomatic of positivism’s insistence that science should be value free. But the bottom line is that it is not, we cannot simply ignore the effects that colonialism and apartheid have had on the way business is conducted in South Africa. In this cluster, it is as if authors are tackling these issues with kit-gloves and not tackling them head on. Case in point is the glaring absence in these proceedings of anything to do with decolonisation in management education, despite this being high on the political agenda since 2015.

Clusters 2 and 4 present issues that critique mainstream capitalist thinking and entrenched assumptions. Yet, again, it seems to be doing so almost cautiously, fearful to rock the proverbial boat, as it were. This results in skirting the real issue at hand. For all the topics raised in Cluster 2, they all converge toward oppressive organisational practices, yet no research paper tackles this issue directly. Similarly, Cluster 4, with all issues green, ecological and sustainable, skirts the real issue of capitalist-fuelled over consumption and limitless growth, the counter argument of which is the growing discourse of de-growth.

Again, no-one has tackled the issue of de-growth head on.

Therefore, in the final analysis, it would seem as though there are papers that cover topics that can progress our discipline by tackling uncomfortable issues, and challenging the boundaries of our thinking. However, these papers make up a small proportion of the overall number of CPs and do not necessarily confront the issue at hand directly enough, or at best deal with a symptom or aspect of a larger debate.

IMPLICATIONS AND RECOMMENDATIONS

From the findings, it seems apparent that critical scholarship needs to be grown in South Africa. There are very few publication possibilities for those scholars who work in the CMS space, and knowledge production in the South African context is difficult in this space. It is imperative that South African management journals and management conferences make provision for CMS oriented work. One practical recommendation could be a dedicated CMS stream at management conferences. It is also imperative that individual academics, management departments, commerce faculties or business schools understand the importance of critical scholarship and introduce management academics to CMS. It might be necessary to move beyond the realm of business and management studies to expose people to critical scholarship in South Africa, but even within business and management studies, there are efforts by CMS proponents to promote and further critical scholarship in management studies in South Africa.

These should be supported in an effort to build capacity in CMS in South Africa.

AREAS FOR FUTURE RESEARCH

This study interrogated the proceedings of a leading South African management conference over a five-year period to ascertain the extent to which capitalist thought and positivist method have pervaded management scholarship. However, it could be interesting to extend this research to other South African management conferences to be in a position to draw comparisons between conferences. Furthermore, this research could also be extended to include management journals to see if there is any discernible difference in the scholarly work contained in journals as opposed to the work presented at conferences.

CONCLUDING REMARKS

Although management scholarship in South Africa is glaringly mainstream and predominantly positivist, and although it is evident that in the long run, the discipline can only benefit from a more established South African critical tradition in management, it is also apparent that there is an intent from within our scholarly community to engage in work that tries to extend the boundaries of our thinking. There might still be some way to go before 'pioneering and progress' in the true sense of the word are achieved in South African business and management studies, but as far as this management conference is concerned, a good foundation has been laid, and with concerted effort, is definitely attainable.

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The influence of the Covid-19 pandemic on the professional identities of health care workers

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Background: The professional identity of health care workers is in constant reconstruction. Since identity is fluid, it is easily influenced and the Covid-19 pandemic created change which affected the professional identity of health care workers.

Purpose: Based on structuration and positioning theories, the purpose of this paper is to answer the question: how has the Covid-19 pandemic influenced the professional identity of health care workers?

Methodology: The methodology applied was qualitative. Six individuals participated in 60minute semi-structured interviews.

Findings: Three themes emerged from this study. These themes are; professional strain and identity management, crisis and reconstruction and experiences of Covid-19.

Conclusion and Recommendations: The study found that through the challenges of Covid19, the professional identity of health care workers was strained. To support the professional identities of health care workers, it is recommended that policies on creating and promoting identities need to be guided.

Keywords: professional identity, pandemic, health care profession, South Africa

Introduction: The purpose of this paper was to investigate the professional identity of health care workers in Pietermaritzburg, KwaZulu-Natal, South Africa during the Covid-19 pandemic.

At the end of 2019, an unprecedented eruption of a virus with meteoric transmission flared-up.

This, a devastating respiratory virus was detected in the city of Wuhan, Hubei Province in China, in December 2019 (Arabi, Murthy & Webb, 2020; Turale, Meechamnan & Kunaviktikul, 2020; World Health Organisation, 2020a). This virus had triggered a pandemic that has been labelled a “health emergency of international concern” and is known as the Coronavirus pandemic (Covid-19) (Wong, Goh, Tan, Lie, Tay, Ng & Soh, 2020:732). From the devastation of this pandemic, professions that have found themselves in the centre of it all, has been those who provide essential services of health care. As the World Health Organization (2020b:2) stated, that the health care profession was overwhelmed by the pressures of managing the

pandemic, together managing infected workers and having access to limited resources. The job of the health care professional and their daily routine consequently changed drastically and one major change that surfaced lied within professional identity. For the reason that, there were concerns of one's role, work effectiveness, limitations, and vulnerabilities (Stetson, Kryzhanovskaya, Lomen-Hoerth & Hauer, 2020).

For individuals in health care, their professional identity is in constant reconstruction, as it is easily influenced by many factors (Sheng, Zang, Wang & Cai, 2020). With the novel and sudden impact of the Covid-19 pandemic, this profession faced many physical and psychological challenges. In an example, a South African Physiotherapist Shamin Khan (2020), spoke candidly about her profession and how it included dual tasks in aiding both nurses and patients in activities she previously had not done. This indicates the creation of a new working environment that these professionals found themselves immersed in. This made health care workers more sensitive to the influence of the pandemic than other professionals. Given the formation of this new working space, and the influence that the pandemic could have in altering ones' professional identity, created new interest.

Previous studies have explored topics under health care (Naidoo, 2020; Chersich, Gray, Fairlie, Eichbaum, Mayhew, Allwood, English, Scorgie, Luchters, Simpson, Haghighi, Pham & Rees, 2020). For instance, Naidoo (2020) found in South Africa, KwaZulu-Natal, a high incidence of burnout, anxiety, and depression among medical doctors. Mbunge (2020) found that South African health care professionals experienced elevated levels of trauma from the pandemic. Chersich and colleagues (2020) in their study investigated the mental and physical health of frontline health care workers in Africa during Covid-19. Studies were also conducted on health care workers, investigating professional identities of nurses in China during Covid-19 (Zhang, Zuo, Cheng, Li, Zhu, Li & Jiang, 2021).

Using the mentioned studies as an exemplar that explored the context of health care workers; professional identity and Covid-19, provision for greater and extensive research still remained. The basis of this gap lies in the accelerating change in atmosphere in health care and the uncertain nature of Covid-19. Within this basis, the motivation for this research was constructed. With a qualitative perspective, a direct investigation and description into the pandemic and its impact on professional identity addressed the gap and lengthened the current body of knowledge. In doing so this research aided in providing an increased understanding of the complexities of professional identity by extending the scope of structuration and positioning theories.

Research question: What is the impact of the Covid-19 pandemic on the professional identities of health care workers?

Literature review: Through decades scholars have taken stock into the make-up of identity and the different shapes it comes in (Appiah, 2018; Ashforth & Mael, 1989; Buckingham, 2008; Brubaker & Cooper, 2000). The topic of identity is not only of interest to scholars, but of interest to others such as makers of film. As films such as *Identity* and *The Bourne Identity*, tapped into the pathology of one's identity (Lawler, 2015). This indicates widespread interest of this topic. Appiah (2018) mentioned that identities come with labels of various kinds and understanding them, lies in how they are applied. One of the many labels to identity is professional identity.

The formation of professional identity occurs when individuals' self-image in executing professional work is influenced by social dialogue of the dos and don'ts of their profession (Atewologum, Kutzer, Doldor, Anderson & Sealy, 2017). Gee (cited in Echeverri & Åkesson, 2018) described professional identity as a fairly constant concept with an assemblage of innate and external factors that define people within their profession. Others like Neary (2014) however, analysed professional identity as fluid and one that is potentially subject to renegotiation. This is because one's identity is broad having multiple influences.

Identity formation: Uncovering various pathways to identity formation leads to the increased understanding of identity. Also understanding who or what we are constitutes to the development and the consciousness of one's professional identity. Furthermore, research indicates that the formation of identity can occur through relationships with others, work-based friendships, and routine workplace interactions (Gecas; Gergen; Berman, West & Richter; Dutton & Ragins cited in Dutton, Roberts & Bednar, 2010). Therefore, making the place of work the central domain for one's identity formation (Dutton et al, 2010). Literature across disciplines provide a myriad of discussions into identity formation. With a board range of ways to understand identity, how identity is formed and what influences its formation, a greater appreciation into this multifaceted structure can be achieved. Making sense of the pathways to identity formation helps one understand its creation.

Pathways to identity formation: Individuals possess many identities, some that are organisational specific with others that are enacted through social or personal processes. To understand these further Table 1 is provided.

Table 1: Pathways to identity formation

Pathways	Definition	Contextual relevance
Occupation-based identity	Individuals' self-image as people who work for an organisation.	As individuals participate within their organisation with clearly defined roles, their identity is established. Example: health care workers practice their occupation within health care environments.
Occupation-specific identity	Individuals' self-image, as a job holder within identified roles.	Individuals identify themselves within the context of their job. Their roles shape their identity. Example: health care workers work within their job description.

Career focal identity	Individuals' understanding of their careers over an extended period; through past, present, and future work experiences.	Individuals' identities are shaped by their career. A career that spans an occupation / profession through life or phases of it. Example: I am a Nurse.
Work identity	Individuals' understanding of their job based on their behaviour and values and understanding the centrality and importance of work to their selfimage across multiple contexts.	Individuals develop their identity as they engage with their work. This would be work specific tasks. Example: advocating patient care.
Professional identity	Individuals' self-image in executing professional work influenced by social dialogue of the dos and behaviour of professionals.	Individuals identify with key components of their profession. Salient in the current pandemic context as it provides health care workers to practice their profession with confidence, professionalism, and ability (Freedman & Stoddard-Holmes cited in Cullum, Shaughnessy, Mayat & El Brown, 2020). Example: I am a professional health care worker.

(Atewologum et al, 2017)

While there may be several approaches and pathways to identity, it is important to build a collective understanding of its formation. Ultimately as stated by Albert, Ashforth and Dutton (2000:14) "because identity is problematic, and yet so critical... the dynamics of identity need to be better understood." In its entirety, identity provides for a complex formation, therefore using singular philosophies will only provide partial insight into this process.

In exploring the different pathways to identity formation, the trajectory to the greater understanding of professional identity was created.

Professional identity: With identity being complex and equivocal, the need for new understandings and applied research into identifying characteristics and propensities for the formation of professional identity is required (Kriukova & Reva, 2020).

Much of a dilemma is present with the categorising of a profession, with dispelled notions of professionalism (Bernard, 2021; Brante, 2011; Caza & Creary, 2016). Despite this, there is much attention given to professionals and professional work (Goodrick & Reay, 2011). Professional and professionalism differ in meaning for people and in context (Hilton & Southgate, 2007). Professionalism is viewed as a social phenomenon of which creates for a “moral understanding among professionals” (Sullivan, 2000:673). Caza & Creary (2016) on the other hand described the term profession as an adjective, one that represents an action of how individuals conduct their work with knowledge and skills. Complementing Caza and Creary (2016), and Pratt, Rockmann and Kaufmann (2006) described professionals as individuals who understand their identity by what they do. With professional identity formation defined as, an adaptive developmental process that happens simultaneously at two levels: level 1 – at the level of the individual, which involves the psychological development of the person and level 2 – at the collective level, which involves the socialisation of the person into appropriate roles and forms of participation in a community’s work (Jarvis-Selinger, Pratt & Regher cited in Goodolf & Godfrey, 2021).

Professional identity is known a substantial catalyst that influences one’s career, their workplace performance, attitudes, and behaviours that are within and beyond workspaces (Porter & Wilton, 2019; Siebert & Siebert cited in Best & Williams, 2019). Consequently, behaviours and individual perceptions and attributes are together intertwined to form one’s professional identity. Leedham-Green, Knight and Iedema (2020) state that professional identity is multidimensional and therefore requires attention than just with a simple definition. So, they (Leedham-Green et al, 2020) decided to explain professional identity under different perspectives: professional identity as collective with society, as a reflection of oneself and in relation to others, as an expression of status, whether in hierarchy or power, as a coping enabler of a profession, as how others see each other, as a sociocultural perspective, changes dynamically and as a concept that transcends across ethnicity, religion, and others.

According to Adams, Hean, Sturgis and Clark (cited in Barbara-i-Molinero, Cascón-Pereira, & beatriz Hernández-Lara, 2017) the development of professional identity occurs through all stages of individual life. It is not formed by the influences of singular factors, but rather through a process during psychological development (including both intellectual and emotional aspects) (Bozhovich, 2020). Van Maanen and Barley (1982) mention in their early study that professional identity is impacted by varied factors that influences one to self-define with a profession or the job they do.

For individuals having a health care profession, their professional identity is in constant reconstruction, as it is easily influenced by many factors (Sheng et al, 2020). One factor that has influenced professional identity was the Covid-19 pandemic (Bruce, de Witt, Botha & Franzsen, 2022). The constant creation of one’s professional identity becomes a timely activity for health care workers and with the novel and sudden impact of the Covid-19 pandemic, this profession has faced many challenges. In example, nursing professionals were exposed to a

larger risk of poor mental health, they were positioned in new roles and carried out tasks that were previously not practiced and beyond their scope (Liu, Luo, Haase, Guo, Wang, Liu, Xia, Liu, Yang & Yang, 2020). For South African health care workers, they felt inadequate and felt

that they were limited in providing necessary care due to limited resources (Kelly et al, 2021). This inflecting severe strain of the profession and affecting the professional identity of these workers.

Professional identity of the health care profession: Constructing professional identities is largely necessary as it describes the relationship between individuals and the context in which they are immersed in (Touati, Rodríguez, Paquette, Maillet & Denis, 2019). For instance, what individuals do is connected to how they see themselves (Pratt et al, 2006). This would be evident when asking health care workers how they perceive themselves, with common responses being about their job (Pratt et al, 2006). EL Brown, Whybrow, Kirwan and Finn (2020), state that the health care profession requires a robust professional identity. Other researchers concur that a strong professional identity is necessary for health care workers and describe professional identity as how individuals identify their sense of self (Wilson, Cowin, Johnson & Young cited in Cullum et al, 2020). Matthews, Bialocerkowski and Molineux (2019:1) speaks of professional identity as a crucial component for “safe and effective clinical practice of all health professions.”

Under this theme of literature, the emphasis of identification is in the understanding associated with the profession of a health care worker. By understanding the importance of what individuals do (their profession), a greater appreciation of who they are as professionals is achieved (examples doctors; nurses) (Pratt et al, 2006). Ultimately, it is important to know “who we are” and when there is self-awareness, we are able to “seek, construct and negotiate” our existence (Brubaker & Cooper, 2000:2). From this we are able to interpret and act out our identity (example: I am a health care professional and an advocate for patient care).

Covid-19 and professional identity: Throughout history there are abound narratives describing health care workers being exposed to contagious and fatal illnesses, sometimes with little understanding of them (Straus, Wilson, Rambaldini, Rath, Lin, Gold & Kapral, 2004). Duding Covid-19, the health care profession had become the backbone to responding to the pandemic (World Health Organisation, 2021). For instance, according to Shun (2021) the Covid-19 pandemic has affected the nursing profession by influencing their nursing capabilities, practices, and operations, though most significantly it has affected their professional identity as nurses. Morley, Grady, McCarthy and Ulrich (2020:35) have identified areas of concern that affected nurses globally: “the safety of nurses, patients, colleagues and families; the allocation of scarce resources; and the changing nature of nurses’ relationships with patients and families”. As nursers are navigating through the viral spread of the pandemic, they are also caring for patients that are infected by other diseases (Turale et al, 2020). Arabi et al (2020) and Drake, Abbey, Holmes, Macdonald, Mackinnon, Slinn and Baylis (2020) refer to further challenges, that the health care profession is understaffed, working with scarce medical facilities, supplies and overcrowding of which results in significant psychological stress. With this the health care profession face a terrain of pathogen situations that are complex and unknown during their line of duty.

Straus et al (2004) continue in stating that there are also stories where these workers avoid the responsibility of treating patients with such illnesses, with possible reasons of paucity of information, rapid progression of the illness, caring for affected colleagues and/or threat of exposure. Therefore, having a robust professional identity during challenging circumstances will assist in reducing the burnout experienced by health care workers (Cullum et al, 2020). As mentioned earlier El Brown et al (2020) spoke of robust professional identity as an essential ingredient within the health care profession. Examining the health care profession under precarious conditions, reveals new insight into their professional identity. However, what

remains evident in literature, is that health care professionals are known to re-adjust their professional identities when adapting to new realities they encounter (Kyratsis, Atun, Phillips, Tracey & George 2017).

For Africa, the health care profession and its workers experienced similar Covid-19 challenges to their colleagues across the globe. With an already fragile health care system in Africa, these challenges however, are exacerbated (Lone & Ahmad, 2020; Nchasi, Okonji, Jena, Ahmad, Soomro, Kolawole, Nawaz, Essar & Aborode, 2022). One major difference found in African health care systems, was in the disproportionate amount of health care workers. In comparing the health care population in Africa and America, “Africa has 2.3 health care workers per 1,000 population”, compared to America which has “24.8 health care workers per 1,000 population (Drennan & Ross cited in Quadri et al, 2021:2169). Less manpower equals more strain and more burnout (Nchasi et al, 2022). This shortage compounded with others, influences professional identity. A local study reported that South African health care workers experienced poor general health and well-being and some experienced psychological distress and for workers in KwaZulu-Natal due to their highly demanding and constrained working environments, were found to be more vulnerable than others (Dawood, Tomita & Ramlall,

2022).

RESEARCH METHODOLOGY AND DESIGN

Research philosophy: This study revolved around a social phenomenon, human experiences and behaviour, human environments and human responses to a world filled with complexities. To understand these multiple realities, interpretivist thinking was applied. Ontology helped understand the social realities of health care workers as they formed their identity during a pandemic and epistemology helped to understand professional identities through the personal experiences of health care workers.

Research design: A descriptive design was used. This generated data that described the impact of the Covid-19 pandemic on the professional identities of health care workers from subjective experiences.

Research approach: This study adopted an inductive position since the intention was to generate theory and compare and challenge it to the existing literature and theory that was used.

Research method: A qualitative method was used in this study. In using this method to investigate professional identity, attention to social practices in understanding how humans experience their world was made (Jackson cited in Omona, 2013).

Research setting: The site of study was the participants workplace, a tertiary hospital situated in Pietermaritzburg, KwaZulu-Natal in South Africa. This location is where the professional identities of health care workers were impacted by Covid-19.

Population and sample: Based on an inclusion criteria of the study, the population comprised of medical doctors, nurses, administrative support staff, and physiotherapists employed at a provincial tertiary hospital in KwaZulu-Natal, Pietermaritzburg which is under the uMgungundlovu health district. A tertiary hospital is also referred to a referral hospital; an institution that receives medical referrals from and provides sub-specialist support to regional hospitals (Corporate Communication: KwaZulu-Natal Department of Health, 2014). Against a qualitative research method; purposive, criteria and snowball sampling was applied. Demographical details of participants are found in Table 2. Such information was not important for this study and only represented the statistical characteristics of participants.

Table 2: Participant demographics

Demographics	Gender	Occupation	Years of experience	Race ²
Participant 1 (P1)	Female	Medical Doctor (internal medicine)	23 years	Coloured
Participant 2 (P2)	Female	Medical Doctor (internal medicine)	2 years	Indian
Participant 3 (P3)	Female	Physiotherapist treating Covid-19 patients	10 years and 6 months	Coloured
Participant 4 (P4)	Female	Physiotherapist treating Covid-19 patients	7 years	Black
Participant 5 (P5)	Male	Nursing Manager and Operational Nursing Manager of Covid-19	33 years	Black
Participant 6 (P6)	Female	Nursing Manager and Operational Nursing Manager of Covid-19	30 years	Black

Data collection method: Six participants participated in individual semi-structured interviews. Semi-structured interviews as described by Nieuwenhuis (2019) are interviews with open-ended and probing questions, it is based on the premise of gathering deeper enquiry. Therefore, responses align with the phenomenon studied and this makes for more attentiveness as the interview advances (Nieuwenhuis, 2019). For a qualitative study, this type of collection instrument worked well. The researcher was able to have conversations with participants and probe deeper with follow-up questions to gain rich data of their lived experiences of professional identity in health care. Consequently, this created for flexible dialogue. A semistructured interview guide with open-ended questions was used, consisting of discussion areas of: health care workers' perceptions of how the Covid-19 pandemic influenced their professional identity, their ideas about their profession prior to the pandemic and their ideas of their workplace experiences and engagement with others [example: Can you tell me how the pandemic has affected your professional identity as a health care worker?].

Data analysis: The first form of analysis was understanding the transcribed interviews by reading and re-reading them. Thereafter, the recorded interviews were listened to for tone and emotions as the participants spoke. Meaning was also inferred from the sounds of these recordings. This then was subjected to structural analysis which was following the process of synthesizing the data into meaning, using content analysis. Of which also applying statistical analysis, through the employment of NVivo, a qualitative analysis tool, which provided for drilling into the collected data and gathering deeper analysis of its meaning. The traditions of these approaches to data interpretation were considered applicable to this research.

² Race: During the apartheid government of South Africa, race classifications were determined under the Population Registration Act No 30 of 1950. This was where the South African population was divided into racial groups of White, Black, Indian, and Coloured (referring to people of mix race) (South African History Online, 1991). Though the Act has since been repealed, these classifications have remained. These terms are not used universally and therefore could be considered offensive; however, they apply within the South African context.

Data quality: The trustworthiness of this study was based on the criteria of credibility (data triangulation was applied), transferability (the findings from this study can be applied to other health care workers and environments), confirmability (all raw data was documented and re-checked during the duration of the study) and dependability (the quality of the processes used in data collection, analysis and in the generation of knowledge) (DeJonckheere & Vaughn, 2019). Investigator triangulation was achieved as data was analysed and verified for accuracy. Additionally, in-depth engagements with the participants were achieved and this allowed for better understanding of their experiences. Credibility was also established by employing more than one method of data collection. In this study transferability can be established by applying the aim of this study to broader health care environments. This study can be conducted with health care professionals beyond the borders of KwaZulu-Natal. Confirmability and dependability was ensured by using an audit trail. It helped with the details of data collection, data analysis and when data was interpreted.

Ethical considerations: This study has been ethically reviewed and approved, (approval number: HSSREC/00003377/2021). This research was undertaken by ethical principles and practices and was guided by the Belmont report which created three ethical principles for research and its participants (Maree, 2019). The principles of beneficence, respect for individuals (autonomy) and justice was maintained during the planning and conducting of the research (Maree, 2019). Ethical and professional principles were maintained throughout the study, prior to beginning the study, beginning study, collecting, and analysing the data and reporting and storing the data. Respect, honesty, anonymity, confidentiality to the research participants and institution of study was maintained.

Discussion of findings: The purpose of this study was to understand how the Covid-19 pandemic influenced the professional identity of health care workers. Using content analysis, significant themes, of professional strain and identity management (1st order), crisis and reconstruction (2nd order theme) and experiences of Covid-19 (aggregate dimension) emerged.

Professional strain and identity management: For many just like the research participants, they managed a medical crisis through physical, emotional, psychological strain, family and societal pressure, total exhaustion, and fear of the infection. Consequently, possessing a robust professional identity was difficult to achieve, let alone maintain. This strong form of identity, however, is one that El Brown et al (2020) emphasized is necessary in the health care profession. This is important since the manner of what individuals do is connected to how they see themselves (Pratt et al, 2006). For Matthews et al (2019:1) the importance lies in providing “safe and effective clinical practice”. This would help in conducting duties, productivity and when encountering ethical dilemmas. For instance: *you can see that this is not right but try and convince the patient in a proper manner, if the patient doesn't agree, you can't force anything to somebody else*: P5.

Research participants' identity was considerably strained, and the source of this being Covid19. A change in voice response for P1 as she said: *We were terrified, I kept thinking and I know it sounds cliché, but it literally felt like we were going to war unprepared. It's been said in the media but honestly that is exactly how I felt. I remember the day we locked down and I was driving to work, and the streets were empty and I'm thinking, man this is so surreal and most of my colleagues will say the same thing. It literally felt that we were in a bad movie, a bad zombie movie and yeah, I mean I don't think I feared death, my biggest concern was I was going to take Covid home to my family, I know that's what everyone has said but that is exactly how it felt.*

The factors mentioned above of physical, emotional, psychological strain, fear of infection and others, was highlighted as P1 shared her feelings. Echoing this was P3: *In the early stages there was lots of fear. We had a lot of fear. Fear of the disease, fear of catching the disease, fear of taking it home, fear of infecting our families. Just, it was centred a lot around fear which is I think why a lot of us developed anxiety.*

It is important that these feelings are reported, as they were a major knock to the identity of the participants. During the peak of the pandemic participants described their experience as *going to war*, this defining the utter chaos and stress, and with rapid response required like in combat. It was beyond what they previously witnessed and lived through, which brought many more concerns.

P6: *It was the worst, worst of the worst. We used to think HIV and AIDS is the worst but when it comes, TB is the worst no. Covid is the worst. It is the first time to come across this. It is the first time to change the way we nurse people. To put on these PPE things and to go in and to go out. It is the first time. Everything is new to us. It is not the same as the other illnesses.*

Participants shared stories of not being with their family and friends, getting infected, and losing patients in minutes. Rather overwhelming feelings expressed by the participants. They experienced professional strains, but they also experienced personal strains. They had to digest the situation that was expected of them to battle with while being sleep deprived, working long hours and having changes in eating habits among others, *we had a long shift, long hours to be in, and not eating*: P5.

What happened at work got taken home: *we are short staffed and there is lack of resources, that will then frustrate me because I know that I cannot work effectively and I cannot do my job effectively, but it also affects me as a person because then I feel inadequate, like I am actually not doing the best that I can. And that actually does have a ripple effect, like I will end up taking it out on my husband and my kids because I just feel like I am not being effective in where I am supposed to be effective*: P3. A new challenge to add to the many, strained relationships, this a result from the high levels of anxiety, and a sign of mental health. Workrelated challenges created social disruptions. In this scenario participants were constantly reproducing their identities (van Rooyen, 2013).

An assumption can be made that typically health care workers like P3 can manage their work duties and personal relationships, however, the pandemic has overridden these following unusual challenges (McConnell, 2020). It is important to maintain personal relationships that are found within a family context. As such relations impact our identity due to the amount of time we share as family (Erasmus, 2019). They are trying to make sense of their environment as they experience changes in resources, productivity, and emotional distress. Implications of which identity becomes distorted and opinions of themselves are created, P3: *I just feel like I am not being effective in where I am supposed to be effective.*

Literature indicates numerous avenues of support aiding health care working with coping strategies (Heath, Sommerfield & Ungern-Sternberg; Hossain & Clatty; Mollica, Fernando & Augusterfer cited in Lewis, Willis, Bismark, & Smallwood, 2022). However, these means rarely identify the sources that contribute to the ills that health care workers experience (Lewis et al, 2022). Further, participants focused on their patient care more than self-care, *caring for other people that's why I became a nurse*: P5.

Looking at this differently, from the perception of P6: *There are new things that I learn during my nursing interventions. So, I really gained more knowledge, more skills, even to divert into*

other things that I am not used to do. That's why I said for me to sit at home if I am not sick, what for, because I know what I have in hand can benefit the poor patient inside. So, rather be here to deliver the service. This indicates a strong duty to treat patient.

In applying critical moments of the pandemic, health care professionals managed their identity and found mechanisms to aid them. Stepping forward we can apply a correlation between anxiety and resilience. Illustrative of these were personal coping strategies:

P1: *But now, now it's Covid fatigue, now we couldn't be bothered ...I want to go back home [laughter] I don't want to be the soldier [laughter] but yeah, I think yeah and my first day being in a Covid ward and seeing the patients, I think and I mean I am a tough guy, I mean I've been a doctor for 23 years, I think when I first saw that and I mean I'm hard, I'm hard core... I'm compassionate yes but I can switch off, but I think I just cried, I cried, and I cried, and I just thought, what are we facing, what is this. It just broke my heart and then **I needed to toughen up** because I realised, I can't be this bubbly, not bubbling, babbling fool that's crying all over.*

P3: *The pandemic pushed me beyond my borders. Beyond, you have fears, as an individual, it brought our fears that I didn't even know I had, and it **forced me to face those fears** basically.*

P6: *If you want to quit, think of this poor patient, who is going to go in and nurse them...You know that you saved so many lives... push and see what can assist me to gain strength for me continue. It works, but psychologically it affects us and physically as well. But sometimes you get exhausted that you feel now I want to quit. But **at the back of our mind that we are there for the patients...people need me.***

Crisis and Reconstruction: Major concerns under this theme were questioning identity and panic and fear.

P5: *During the first wave, when I wake up early in the morning, when nobody is not going anywhere, I had to ask myself did I take the right profession? Everybody is at home; I am at work and the police, that's like a soldier, I am attending the army now.*

For P2: *we actually feared every single wave, none of us were, even though we had experienced the previous wave, were all ready for the next one, and I think that there are quite a few things that were highlighted every single time there is a wave of Covid, that we can improve on.*

However, I don't think that we actively improve on those things by the time the next wave hits. I think sometimes we are still fumbling to make that process better or the resources better and it is not an immediate thing, it takes time. And I think that's something that might influence us. We might feel quite insecure in our professional identity to deal with the next wave or whatever it might throw at us next. And that is scary.

Participants were found to question their identity and expressed feelings of panic and fear. This reflects everyday feelings and experiences of health care workers during the pandemic. Participants interpreted the pandemic feeling distressed and anxious yet still being intertwined in carrying out their professional responsibilities and duties. Appropriately categorised from the study of Marinaci, Venuleo and Savarese (2021) Covid-19 representing both a health emergency and personal crisis and a scenario where health care workers felt powerless yet also on the of discovery new meaning as professionals. Health care professionals went in everyday to protect others, while knowing the risks they face. This indicates the sacrifice that this profession makes (Turale et al, 2020). Under normal circumstances, the health care profession faces strain (Straus et al, 2004), with the pandemic this is felt even more.

Experiences of Covid-19: *I think we were very underappreciated before Covid-19 and then suddenly we were celebrated as heroes, so it was a very strange thing, I think it made me feel more responsible:* P1. An article titled “Don’t call us heroes’ – health care workers overwhelmed by Covid-19 want help, not praise” by News24 (Mafata, 2021) proves felicitous to the feelings of Participant 1. This article provides stories of experiences from health care professionals in South Africa during the pandemic. It concludes its write-up by stating when labelling health care workers as heroes, “it creates a false impression that they do not buckle under the pressure or need support...it puts health workers in a position where they have to over-perform all the time” (Chikura cited in Mafata, 2021).

Sentiments shared by P1 was also that the pandemic, *is quite significant because it is a medical condition, [and the health care profession] actually bears the brunt of the patient load. So, the workplace itself changed structurally.* Madad, Moskovitz, Boyce, Cagliuso, and Katz (2020) raised concern that infectious diseases are emerging rapidly and is spreading just as fast. It is health care workers that respond to these “external shocks” (Hanefeld, Mayhew, LegidoQuigley, Martineau, Karanikolos, Blanchet cited in Chemali, Mari-Sáez, El Bcheraoui &

Weishaar 2022:2). For the research participants, *it was quite a stressful time... and we were quite stressed and exhausted. A lot of us burnt out at that point :P1.*

In South Africa: Eastern Cape, health care workers felt inadequate and felt they were limited in providing necessary care due to limited resources (Kelly et al, 2021). Besides resource restrictions and other associated challenges, in South Africa: KwaZulu-Natal, the first year of the pandemic reported 15829 health care workers infected by the virus (Dawood et al, 2022). All of which placing severe strain of the profession. For health care workers in Pietermaritzburg, a city in KwaZulu-Natal and where this study was conducted, reported towards a more psychological burden and the ability to adaptively respond to Covid-19. For P4: *this happened so quickly, you were overwhelmed with having to make all of these adjustments and changes and deal with your own stress and anxiety and nervousness in such a short space of time to juggle all of that while being able to help with the sick.*

Discussion: “Although multiple studies have aimed to understand the impact of the pandemic on individuals and institutions, few have focused on the impact on health care workers” (Quadri et al, 2021:2169). Keeping this in mind, the purpose of this study aimed to investigate how the pandemic affected the professional identities of the participants. Importantly so, as authors Kelly et al (2021) stated that there is an insufficient understanding of the impact of Covid-19 as health care facilities differ. For Africa this study is also noteworthy as Quadri et al (2021:2169) stated that “little is known about the impact of the pandemic on health care workers” in this region. From literature (Turale et al, 2020) and in the words of the participants, health care workers, became known for their heroism as they worked in fighting disease outbreaks. Participants felt this pressure as they said that the health care profession bears the brunt of Covid-19 as it is a medical condition. Participants expressed burnout, due to stress and exhaustion. From this they questioned their identity and spoke of their experiences of panic and fear. This generated the main theme of **experiences of Covid-19** with second-order theme: **crisis and reconstruction**.

Major concerns held by participants were grouped into categories of questioning identity and panic and fear. Participants expressed vulnerability which weakened their professional identity. These feelings derived from their first-hand experiences of the pandemic. They shared stories filled with distress and anxiousness but said that they have to continue with

their professional responsibilities and duties in treating the virus. They protected others, while risking their own lives and in doing so experienced more strain than before. In the calm of the storm, some participants felt that the pandemic strengthened their identity, with others stating that it negatively affected them. These experiences were fuelled by constant change, with every day in health care being different.

Through the challenges of Covid-19, the professional identity of the participants was strained. They experienced physical, emotional, and psychological strain, fear of infection and others. They were not able to be with their families, some got infected with the virus and some lost patients they cared for. Participants experienced both professional and personal strain. From it all, they developed coping mechanisms, dusted themselves of and continued. What mattered in the end was the smiles on the faces of the participants. From the Covid-19 pandemic, participants learnt more, gained new skills, rebuild their profession with passion and reestablished their professional identities.

Practical implications and limitations: The significant contribution made from this study, was closing the gap of knowledge on the impact of the Covid-19 pandemic on health care workers specifically for Africa. Thereby addressing Quadri and colleagues (2021) concern of the scantiness under this context. A major impact for health care workers was burnout, and the feeling of insecurity in their professional identities due to fear, panic, stress, and exhaustion. From the wreckage of the pandemic health care workers were found to develop new knowledge and skills, rebuilt their professions and importantly, in their eyes re-establish their professional identities.

A qualitative design was used to study the phenomenon of the construction of professional identity for health care workers during the Covid-19 pandemic. With this design, it became apparent that results could not be generalised as the sample selection was made through nonprobability sample techniques. Although the participants varied in age, experience, parity, department, and education, an inclusive criterion dominated this. All participants were health care workers within the Department of Health (KwaZulu-Natal – Pietermaritzburg). Despite the lack of representation of all health care professionals nationally, the chosen sample contributed salient knowledge and insight that was specific for the objectives of this study.

Implication of theory: The theoretical contribution of this study was achieved by advancing the existing theories of structuration theory and positioning theory, theories that complement each other. These pre-existing theories framed the study; however, in its primary use these theories were found to be applied separately. Professional identity formation was clearly studied under the vantage points from the existing theories and shortfalls were addressed by this study in its attempt to bridge gaps. Thus, broadening the scope of structuration theory, and positioning theory. Professional identity formation is recursive in nature, it is complicated in its development and it is interrelated to various factors of influence, thereby extending and merging the mentioned theories provided for an understanding into this multi-dimensional context.

Future research: This study only concentrated on one provincial tertiary hospital in KwaZulu-Natal, Pietermaritzburg under the uMgungundlovu health district. There are other hospitals providing health care at different institutional levels. With this investigation expanding across health care communities and geographical regions, a wider picture of the impact of the pandemic on the professional identities of health care workers can be formed.

More investigation within the local context of Africa and within its country South Africa should be made. This will strengthen and create for an action-based approach of adding to literature and most importantly providing succour for health care workers during critical periods. The focus of this study was on the lived experiences of professional identity of health care workers. This directed the qualitative approach of this study. To reduce this limitation, quantitative and mix methods can be employed. This would be able to measure the impact of Covid-19 on professional identities through a more scientific analysis.

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A critical review of artificial intelligence literature: Chat GPT use and effects in the modern world

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ABSTRACT

Artificial intelligence is the theory, practice, and development of computer systems capable of doing activities that would ordinarily require human intelligence, such as seeing, hearing, making judgments, and language translation. This has been done in order to make information easily accessible when needed. There are several artificial intelligence options in the market including Chat GPT, chatbots, IBM Watson, machine learning, natural language learning, computer vision, robotics, and natural networks. The purpose of this study is to focus on one, Chat GPT (Generative Pre-trained Transformer). The study considered secondary data from various studies carried out. The review has revealed that Chat GPT has been used for a variety of purposes, such as customer support, language translation, content production, and discourse systems. Peer-reviewed research found that it had a major impact on academics, instructors, and students, while some expressed reservations about its use. The study recommends that its application must be moderated while making decisions that are critical in life with far-reaching implications. Those decision-makers must confirm any information received using other models too and pieces of training among other options must be put in the development of artificial intelligence models.

Keywords: Artificial intelligence, Chat GPT, Computer systems

STATEMENT OF THE PROBLEM

The interesting thing is that the world is slowly embracing the use of modern technology performance in various sectors. Chat GPT for example has rapidly become popular and its use is spreading over the globe. It can no longer be viewed as a tool for the learned. The majority are eagerly and in haste applying its use and without caution, it can be disastrous particularly if its outcome results in decision making. This study sought to look at the existing vital literature about Chat GPT use and its implications in the present time world. This study aims to show major trends, issues, and ethical considerations associated with the implementation of Chat GPT, as well as its impact on a variety of sectors. The study hopes to provide important insights into the current state of Chat GPT technology and its implications.

OBJECTIVE OF THE STUDY AND METHODOLOGY

The goal of this study was to look at the available literature on the use of Chat GPT and its effects in contemporary society while focusing on evaluating its consequences, effectiveness, and ethical considerations. The study employed exploratory research with secondary data being considered.

EMPIRICAL STUDIES ON CHAT GPT

The most recent research explored at potential applications of Chat GPT in a variety of disciplines, with mixed results. For example, Jahanbakhsh and Morid (2021) examined its applicability in healthcare, whereas Liu and Singh (2020) presented a universal game-playing

agent based on GPT-2 and had a positive significant effect (Hill-Yardin, 2023). Adiwardana et al. (2021) devised a way to improve the human-like quality of GPT model-generated text where it assesses student data such as style of learning, preferences, and progress to build customized educational routes for learners (Anderson et al., 2023). This method enables learners to acquire knowledge at their own speed and in the way they prefer (Zhang et al. 2019). Equally, the study established that GPT could give students instant feedback that boosts their educational experiences. This in effect makes learning exciting and interesting.

Chat GPT can assist scholars with efficiently filtering through enormous quantities of information and identifying appropriate sources especially if they urgently require information to develop hypotheses and make informed conclusions. Equally, investigators can enter search terms, and it will offer chapters, suggestions, and even novel study topics (Dallago et al., 2020; Levy et al., 2020; Ariadne Labs, 2020). This helps in increasing and widening the scholars' scope for research. Chat GPT may facilitate the computerized translation of words and phrases, increasing the accessibility of research to a global audience. This reduces the burden of translation of published work by researchers to reach a wider market (Dwivedi et al., 2023). Researchers may input text in one language and have it converted into another, allowing them to reach a larger audience (Sanchez-Cartagena et al., 2020). Yin et al., (2020), maintained that it can be valuable for international researchers who need to translate their work into multiple languages for a wider readership.

Chat GPT can generate human-like prose, letting investigators quickly publish excellent papers, abstract concepts, and articles. Researchers are able to submit drafts, and Chat GPT will recommend alterations and revisions to ensure that the final version is polished and ready for publishing (Kolesnyk et al., 2020). This works well in situations where publication is required for either promotion or consideration for a position. Chat GPT can help with collaborative writing assignments by providing immediate suggestions and feedback. It may provide comments aimed at enhancing clarity, design, and setup, assisting investigators in generating cohesive and informative documents (Sohail et al., 2023; Kirtania, 2023; Henderson et al., 2020; Ito, 2020; Guseva et al., 2020).

Researchers, on the other hand, receive customized study assistance from Chat GPT, including customized suggestions for research subjects, the approach, and data analysis methods that are particular research. Scientists can enter their research objectives, and Chat GPT will give suggestions as well as direction on how to achieve those objectives (Dallago et al., 2020; Chen et al., 2020; Wang et al., 2020). Further important is the fact that it can evaluate huge volumes of data, detect probable correlations between variables, and even construct hypotheses. This can be beneficial for exploratory research or for the generation of new ground concepts for study in this contemporary world (Megahed et al., 2023; Sharma et al., 2020).

In enhancing data analysis, Chat GPT can simplify data analysis by automatically discovering trends and patterns in huge data sets. This can save time while also lowering the likelihood of human error in data analysis (Karami et al., 2020; Rahman et al., 2020). In addition, improved efficiency is realized through automating operations like creating summary information, writing abstract concepts, and preparing reports to allow investigators to save time so that scholars can focus on other critical duties like data processing and synthesis (Dergaa et al., 2023; Gao et al., 2023; Cerón-González et al., 2020).

Chat GPT can provide customized proposals for research papers based on an investigator's preferences, past reading habits and research goals. This can assist scientists with discovering new topics of investigation and staying current with the most recent successes in their chosen professions (Shihab, 2023; Umoren and colleagues, 2020). It can help improve the retrieval of data by searching and retrieving important information from the vast scientific research databases that are available. This can make it easier for scientists to identify appropriate articles and enhance the efficiency of their investigations (Crompton, 2023; Giacobini et al., 2020). Chat GPT can be used to generate human-like text, which can be

useful in a variety of disciplines like processing natural language, modeling language, and mining texts. It can also be used to produce vast amounts of synthetic text data for machine learning model training (Deng et al., 2020).

Chat GPT may be programmed to answer questions depending on a given context, making it helpful for jobs like machine-generated customer service and information retrieval, which are majorly used in the service industry (Lund, 2023; Lee, 2023; Saha and colleagues, 2020). Recent studies have revealed that AI can improve educators' mental capacities by allowing them to work more efficiently and effectively. Research appearing in the *Journal of Educational Technology and Society*, for example, revealed that AI-based solutions can help educators manage and organize enormous amounts of data, allowing them to make better decisions and provide more effective support to their students and the learning process (Liu, D. Y., & Zhang, Z. Y., 2021; Biswas, 2023; Shidiq, 2023).

There are likely to be flaws in every innovation or technology, and this paradigm is no exception. For instance, it may produce skewed or misleading results, particularly if the training data used to develop the model is biased or contains incorrect data akin to spreading propaganda (Kleinberg et al., 2022). It may gather and keep confidential user data that is susceptible to hacking or data breaches which might result in enormous losses and embarrassment. Furthermore, it may be used to disseminate malware or phishing attempts (Kambourakis et al., 2022). Also of concern is when it comes to disciplines such as medicine and law, where the correct information is required for faster decision-making, a piece of wrong information is too catastrophic (Prasad & Srivastava, 2021).

Students may become unduly reliant on it and fail to acquire problem-solving and critical thinking skills which is vital in their daily lives and more so where they can't access the internet. It can also reduce independent growth and intellectual curiosity in researchers and make them overly reliant on it (Mansourian et al., 2022). It may equally present legal and ethical problems like rights to intellectual property, ownership, and accountability (Hinze & Riedl, 2022). Further, it may also have a negative effect on interactions with others and communication, resulting in less person-to-person contact and human relationships with others which is essential in our lives (He et al., 2022). It can be tricky sometimes to comprehend complex questions or respond appropriately, especially in situations necessitating human compassion and emotional intelligence (Holstein et al., 2022).

From the literature reviewed, Chat Gpt has had an immense application in four sectors: education, health, tourism and game playing. Education has seen its application in areas of data analysis for scholarly work. It has also been used in filtering information from massive data masses hence reducing mental stress on scholars not to mention its ability in translating the works of educators to reach a wider audience. Equally, it was utilized in the generation of research topics and guided discussions in exploratory studies and coming up with human-like texts.

In health the studies showed some immense use; for instance, in the area of data analysis, translations of information to reach out to different patients from different language backgrounds. It is also applied in the area of data analysis for quick decision-making and faster retrieval of data and required information in critical situations. While in tourism, it has equally helped in the translation of information to suit different clients. It also helped in answering repetitive questions that require specific answers and data retrieval of data when needed. The other sector where Chat GPT was found relevance is in the area of gaming

CONCLUSION

In conclusion, Chat GPT has shown considerable potential as an artificial language model, and its capacity to generate human-like responses has helped enhance communication and customer support in many different sectors. However, there have been varied results with the use of Chat GPT. One challenge is that it is prone to bias because it learns from human input, which can include bias and stereotypes hence not presenting an accurate position. Another source of worry is the possibility of it being abused to transmit misleading information or lies. In general, the application of Chat GPT demands considerable thought, ethical accountability, and personal responsibility. While it can be a useful tool for increasing communication and efficiency, it is critical to use it responsibly and constantly check and correct any biases or mistakes that may occur.

RECOMMENDATIONS OF THE STUDY

Ethical Training: Educationists must ensure that Chat GPT models receive comprehensive ethical training in order to reduce biases and promote responsible artificial intelligence use.

Implement human oversight to monitor and correct artificial intelligence-generated material, particularly in key fields such as healthcare and journalism.

Education and Training: Users should be provided with education and training to help them understand the possibilities and limitations of Chat GPT, while also encouraging appropriate use.

Transparency: Artificial intelligence developers should be encouraged to be transparent about the methods and data used in Chat GPT models.

Regulation: Policymakers should advocate for proper artificial intelligence regulations and guidelines that balance innovation with ethical and safety concerns.

Data Privacy: Enhance data privacy safeguards to protect user information when engaging with Chat GPT and other artificial intelligence systems.

Diverse Development: Encourage diversity in artificial intelligence development teams to avoid biases and ensure a more comprehensive perspective in artificial intelligence system design.

Empower people to make educated decisions about the use of artificial intelligence and the sharing of personal information.

Continue exploring and refining powered by artificial intelligence mental health support systems while remaining aware of their limitations.

LIMITATIONS OF THE STUDY

Material Availability and Quality: The quality and quantity of material accessible on the topic may be limited. Accessing relevant, up-to-date, and trustworthy information can be tough, especially in this area that is fast expanding.

Bias in Literature: The available literature may be skewed towards specific perspectives or may lack multiple points of view, which could compromise the review's thoroughness and objectivity.

Concerns about Data Privacy, bias in AI models, and the potential for misuse may arise when addressing the consequences of Chat GPT. These ethical considerations can be difficult to address thoroughly.

Data and technique: The study's findings may be influenced by the quality and extent of the data analyzed, as well as the technique used. Limited data availability or research methodology limitations may have an impact on the study's robustness.

Rapid Technological Advances: The field of artificial intelligence is rapidly evolving. Literature accessible at the time of the study may become out of date soon after publication, reducing the study's long-term relevance.

Generalization: The effects and use of Chat GPT may differ among areas, cultures, and sectors. It is possible that generalizing conclusions to the entire modern world is not appropriate.

Alternative Models: The study only looked at Chat GPT and not alternative AI models or technologies that may rival with or supplement Chat GPT, impacting the evaluation of its effects.

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A critical review of the literature on the relationship between knowledge management and organizational performance: a worldwide perspective

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ABSTRACT

A knowledge management system makes use of an organization's collective knowledge to increase operational efficiencies. The aforementioned systems are backed up by an information repository. They are essential to the good management of knowledge due to the fact that they offer a centralized location for storing and conveniently retrieving information. Institutions that apply a management of knowledge approach get better business results faster due to the boosted organizational learning and communication among team members facilitating faster decision-making across the board. According to surveys, it also streamlines multiple institutional processes such as training and initial integration within an organization, resulting in higher staff satisfaction and retention. The purpose of this research is to look into the relationship between knowledge management and organizational performance in a variety of businesses and sectors. The data considered was secondary data from the studies. This paper had a global view in various sectors and the results are mind-boggling. Knowledge management when practiced results in innovations, customer satisfaction, low production costs, and sharing of information among other advantages. The studies also indicate the consequences of a lack of knowledge management including high labour turnover, lack of innovation and creativity, and unprecedentedly high expenditures. However, there were mixed results an indicator of moderators that should be identified

Keywords: knowledge management, innovation, employee satisfaction, approaches to knowledge management

KNOWLEDGE MANAGEMENT A PANACEA FOR DEVELOPMENT

Knowledge management is the process of generating, disseminating, making use of, and managing knowledge and information throughout an organization. It incorporates the adoption of strategies, methods, and policies to gather, preserve, and disseminate knowledge in an effort to enhance organizational performance and gain an edge over competitors. Knowledge management has caught a lot of attention in the management literature, and research has shown that effective knowledge management techniques may contribute to more effective decision-making, innovation, and customer satisfaction. The implications of knowledge management on organizational performance, on the other hand, differ between sectors, contexts, and cultures. As a result, organizations must adjust their knowledge management approaches to their specific needs and environment. Successful knowledge management has the potential to help organizations harness their own intellectual capital, utilize their workers' expertise and experience, facilitate collaboration and interaction, strengthen learning and development, and fulfilment of their strategic goals and objectives. Several studies have been launched to explore the relationship that exists between knowledge management and organizational performance, yielding universally positive results. For instance, Akhavan et al. (2021) revealed that knowledge techniques for management significantly boost organizational innovation, which in turn promotes organizational

performance and workers retention. Similarly, Salim and Ooi (2020) reported that knowledge management possesses a significant positive impact on organizational performance in the framework of small and medium-sized companies. The study maintains that knowledge management helps in keeping the valued information within the organization and can be used easily at will for the productive services.

STATEMENT OF THE PROBLEM

Organizations are increasingly recognizing the strategic importance of knowledge management in reaching and maintaining high levels of performance in today's fast-paced and competitive business climate. While there is an increasing corpus of research indicating a favourable association between effective knowledge management techniques and organizational performance, there is still a lack of complete understanding of the particular mechanisms underlying this correlation. The purpose of this research is to look into the relationship between knowledge management and organizational performance in a variety of businesses and sectors. The research intends to uncover the important knowledge management techniques that lead to improved performance and investigate potential barriers that impede the successful implementation of knowledge management efforts by investigating this link. The following are the primary areas of investigation: knowledge management practices identification, organizational performance evaluation, identifying Key success factors, and comparative evaluation: This study intends to give significant insights to organizational leaders, managers, and policymakers on the importance of knowledge management in boosting overall performance by addressing these research topics. The findings will add to the existing research and assist firms in making informed choices about maximizing their knowledge management strategies in order to attain long-term competitive advantage.

PURPOSE OF THE STUDY

The purpose of this research is to look into the relationship between knowledge management and organizational performance in a variety of businesses and sectors.

RESOURCE-BASED THEORY

The Resource-Based Theory (RBT), also known as the Resource-Based View (RBV), is a popular theoretical perspective in strategic management that emphasizes the significance of an organization's internal resources and capabilities in establishing and maintaining a sustainable competitive advantage (Mahdi, 2014). The core concept of RBT is that valuable, rare, inimitable, and non-substitutable (VRIN) resources can lead to a competitive advantage that competitors find difficult to replicate (Mahdi, 2014). When performing a resource-based theory literature review, researchers often try to locate and analyze studies that investigate the relationship between an organization's resources, capabilities, and performance outcomes. In a literature study, some important applications of Resource-Based Theory include: identifying critical resources: RBT can be used by researchers to identify the critical resources and capabilities that contribute to an organization's competitive advantage. Thrassou (2018), for example, undertook a literature study to determine the important resources that contribute to family enterprises' competitive advantage. Assessing Competitive Edge: A literature review can look at how different companies have used their particular resources and competencies to gain a competitive edge in their respective industries. Schwens et al., (2018), for example, undertook a meta-analysis of research to analyze the relationship between firm-specific resources and sustainable competitive advantage.

The resource-based theory, therefore, is ideal and guided this study in identifying the organization's unique resources (Knowledge management) and how it harnessed them to gain competitive advantages and spur performance.

EMPIRICAL LITERATURE REVIEW

Laursen and Salter (2020) conducted research into the relationship between knowledge administration and innovation effectiveness among German manufacturing enterprises. The study demonstrated that methods for managing knowledge like information acquisition, integration of knowledge, and knowledge application enhance innovation performance and innovation practices. The study also discovered a larger correlation between knowledge management and innovation accomplishments in high-tech companies than in low-tech ones. This was so because high-tech companies invested more heavily in them than the small ones. Equally multiple research in Germany analyzed the impact of management of knowledge on organizational performance, for instance, Stegmaier, Klärner, and Schulz (2020) revealed a significant positive relationship between the management of knowledge and organizational efficiency in German SMEs. The research additionally showed that knowledge management strategies like knowledge production, information sharing, and knowledge utilization strengthen organizational performance, productivity and workers retention

Wagner and Block (2020) evaluated the impact of knowledge management on the success of German firms in regard to innovation. The findings revealed that knowledge management methods had a significant and beneficial impact on innovation performance, particularly as mediated by organization learning and capacity to absorb. According to the analysis, organizations should focus on strengthening their comprehension of management methods as a way to improve their ability to absorb and apply new knowledge. Similarly, Khan et al. (2020) explored the relationship between the management of knowledge and organizational performance in the German automobile industry. The study revealed that KM increases organizational performance by enhancing product quality, lowering time-to-market, and enhancing organizations' innovation capacity. Further, there was customer satisfaction and customer loyalty accrued because of knowledge management

In addition, knowledge management contributes to enhanced organizational agility and flexibility, both of which are getting more vital for organizations in the ever-evolving American market. Al-Faraj et al. (2020) examined the impact of knowledge management on company flexibility in the information technology sector. The study concluded that knowledge management methods had a favourable effect on organizational agility, in particular in terms of flexibility, speed, and responsiveness for organizations could tailor the product to the needs of its customers. In order to enhance their agility and flexibility, organizations ought to utilize effective knowledge management processes such as information sharing, collaboration, and learning, as well as organizational structure and technology utilization, according to the study. Al-Husseini et al. (2020) on the other side evaluated the knowledge administration effect on organizational efficiency in the banking sector. The study revealed that methods of management of knowledge had a positive significant effect on the efficiency of the organization, particularly monetary results, customer satisfaction, and worker engagement. To enhance their performance and competitiveness, banks ought to employ efficient knowledge management practices such as generating knowledge, sharing, and using, as well as leadership support and human resource development, according to the report. This ultimately resulted in banks having a competitive edge in the industry justifying high investments in knowledge management

Furthermore, Knowledge Management can promote organizational learning and knowledge generation, either of which is essential to staying competitive and creative in today's fast-changing organizational environment. In the words of Sánchez et al. (2020), the Knowledge Management approaches have a favourable contribution to organizational learning and knowledge production in U.S. organizations, leading to enhanced organizational performance

and innovation. Nguyen and Nguyen (2020) investigated the relationship of Knowledge Management on organizational efficiency in the US information technology sector. The results revealed that knowledge management techniques had a favourable contribution to organizational performance, notably in terms of innovation, customer happiness, and staff efficiency. According to the study findings, information technology institutions should use efficient Knowledge Management practices such as transfer of knowledge, formation, and intake, as well as education and advancement in order to boost performance and competitiveness.

Knowledge Management offers the potential to promote organizational resilience and adaptability, both of which are crucial for addressing the problems and uncertainties that occur in African environments. According to a study conducted by Udeh et al. (2020), the approaches amiably enhance organizational resilience and adaptation in Nigerian organizations, resulting in increased organizational performance and sustainability. Also, Adjei et al. (2020) evaluated the impact of the management of knowledge on organizational innovation and performance in Ghanaian manufacturing enterprises. The study revealed that knowledge management efforts led to enhancement in innovation and performance, particularly in product innovation, process innovation, and customer satisfaction. According to the survey, organizations ought to employ successful knowledge management practices such as knowledge exchange, creation, and usage to improve their innovation and competitiveness.

Oyedele et al. (2020) evaluated the impact of knowledge management approaches on corporate social responsibility (CSR) performance in Nigerian organizations. The study revealed that knowledge management techniques had an impact on CSR performance, most significantly in terms of stakeholder engagement, ethical behaviour, and environmental management. In order to enhance their CSR performance and reputation, organizations should implement effective KM activities such as stakeholder knowledge sharing, sustainable knowledge development, and strategy alignment, according to the report. Similarly, Hesam et al. (2020) investigated the connection between knowledge management and organizational productivity in the Nigerian performing banking industry. The study concluded that methods for management knowledge had a positive significant effect on organizational success, specifically financial outcomes, customer satisfaction, and staff engagement.

According to Ondieki et al. (2020), Knowledge Management approaches promote organizational resilience and sustainability in Kenyan organizations, which leads to enhanced organizational performance and competitiveness. While Matibiri and Zuva (2020) did research the connection between management knowledge and organizational performance in Zimbabwe. The study revealed that the methods of knowledge management had a greater positive impact on organizational performance, notably in terms of creativity, efficiency, and customer satisfaction. Ntshangase and Cilliers (2020) evaluated the effect Knowledge Management had on the creative capacity of South African small and medium-sized firms (SMEs). The study concluded that methods of knowledge management influence SMEs' innovation capabilities, particularly in terms of product and process innovation.

According to a study conducted by Fominyen and Fongod (2020), Knowledge Management techniques foster communication and collaboration in Cameroonian organizations, which results in improved team performance and knowledge sharing. Buabeng-Andoh and Sarfo (2020) demonstrated that Knowledge Management techniques support organizational flexibility and resilience in Ghanaian organizations, contributing to improved performance and sustainability. Similarly, Wambui and Muturi (2020) considered the impact of the management of knowledge on organizational performance in the Kenyan banking sector. The study showed that the management of knowledge initiatives had a beneficial effect on organizational efficiency, especially in terms of efficiency, innovation, and customer satisfaction.

Furthermore, knowledge management may boost organizational communication and collaboration, both of which are crucial to effective teamwork and knowledge sharing. Yamada et al. (2019) reported that KM strategies promote communication and collaboration in

Japanese companies resulting in improved team performance and knowledge sharing. Matsuo et al. (2019) in his study he concluded that knowledge management methods had an effect on organizational performance, especially in terms of imaginative thinking, efficiency, and customer satisfaction. Equally, Akamine et al. (2019) in his study, it was revealed that knowledge management practices have a significant effect on innovation and competition, which leads to increased organizational performance. Oba and Kato (2019) recognized that knowledge management strategies aided innovation and performance in Japan, notably in terms of product originality, process improvement, and sales growth.

According to Kimura and Shimizu (2019), KM practices boost communication and collaboration in the Japanese context, resulting in improved team performance and information sharing. Similarly, Nishiyama and Hoshino (2019) observed that KM increases organizational performance and service delivery in the Japanese public sector by positively affecting collaboration and knowledge development. Hadi et al. (2019), on the other hand, examined the Croatian environment and discovered that knowledge management has a favorable effect on organizational outcomes, which include factors such as creativity, productivity, and client fulfillment. Beloucif and Boudjelal (2019) investigated the influence of KM on organizational learning and intellectual capital in Algerian organizations. According to the study, KM practices have an excellent effect on organizational learning and intellectual capital, which contributes to increased organizational performance.

Grigore and Dumitrascu (2019) investigated the impact of the management of knowledge on organizational creativity and competitiveness in Romania. According to the study, KM practices have a positive impact on creativity and rivalry, which leads to enhanced organizational performance. According to Panahi et al. (2019), KM procedures have had a positive impact on organizational innovation and performance in the European healthcare sector. According to the study, KM practices can improve the standard of healthcare services, lower costs, and improve the experiences of patients. While in Italy, Mancini et al. (2019) in his study it was revealed that KM offers positive effects on creative thinking, the quality of products, and consumer loyalty, all of which improve company performance.

Piekarski and Kwasek (2019) examined the correlation between the management of knowledge and the performance of institutions in Polish SMEs. The study revealed that KM provides a greater outcome on organizational performance and that the association is moderated by the firm's level of innovation in technology. Cucculelli and Mannarino (2019) investigated the impact of KM on corporate growth and innovation in Italy. The study revealed that KM has benefits on innovative thinking and business performance and that creativity helps to moderate the relationship between KM and performance. Marques et al. (2019) evaluated the impact of knowledge management on the strategic effectiveness of Portuguese manufacturing SMEs. Based on the findings, KM practices have an appealing effect on strategic competitiveness, especially in terms of differentiation of products and orientation toward clients.

Papadopoulos et al. (2019) researched the connection between the management of knowledge on the collaboration and innovation performance of Greek SMEs. The study pointed out that KM practices had a significant effect on collaborative and creative performance, particularly between organizations and new product creation. Vasiljevi et al. (2019) evaluated the correlation between the management of knowledge and organizational success in Serbian SMEs. The results of the findings showed that Knowledge Management efforts have positive effects on organizational performance when it comes to technological advancement and market competitiveness.

According to Oborn et al. (2019), KM practices promote collaboration as well as communication, which leads to improved team performance and knowledge sharing. Similarly, Hsu et al. (2019) observed that Knowledge Management encourages information sharing and cooperation, which improves organizational performance and creativity. According to Tareq et al. (2019), methods of knowledge management promote flexibility in organizations, which is a

vital aspect in obtaining long-term competitive advantage. Abdullah et al. (2019), knowledge management has a favourable impact on business achievement, which includes factors including consumer happiness, staff satisfaction, and economic performance. Finally, according to Maldonado-Guzmán et al. (2019), Knowledge Management techniques significantly affect organizational learning and knowledge exchange, which leads to increased organizational performance.

IMPLICATIONS OF FAILING TO PRIORITIZE KNOWLEDGE MANAGEMENT

A lack of focus on knowledge management is capable of resulting in lower organizational performance because firms may miss the potential for improving their products or services, cutting costs, or boosting efficiency. For example, Haddara and Zach (2020) revealed that a lack of knowledge of management methods in Egypt's small and medium-sized firms (SMEs) has been connected to lower organizational performance, including decreased productivity and profitability.

A failure to put emphasis on knowledge management can stifle innovation and creativity. For example, Al-Riyami, Al-Shihi, and Al-Ruzaiqi (2020) revealed that a lack of knowledge sharing among Omani personnel had a correlation to diminished creativity and innovation. Knowledge loss can be especially severe in industries such as healthcare, where knowledge is essential for providing high-quality care to patients. According to an investigation carried out by Srinivasan and Barua (2020), a lack of knowledge management methods in Indian healthcare organizations correlated to an increased risk of knowledge loss owing to employee turnover.

According to a study conducted by Maqbool and Raza (2020), firms that do not invest in knowledge management are more inclined to suffer fewer levels of creativity, which can lead to decreasing competitiveness and productivity. According to a study conducted by Yuce, Aslan, and Karacaoglu (2020), failure to manage organizational knowledge could contribute to lower levels of learning within an organization, which can impede continuous growth and creativity.

According to a study conducted by Sharma and Jain (2020), inadequate knowledge management methods can lead to a lack of communication and collaboration from within organizations, which can impede decision-making and impair productivity. Nwosu, Nwosu, and Eze (2021) revealed that ignoring knowledge management might lead to decreased production and competitiveness in the marketplace

According to Hassanzadeh et al. (2021), ignoring knowledge management might result in a lack of knowledge continuity as well as knowledge loss when people leave an organization. According to Chikweche and Martins (2021), organizations that do not value knowledge management are more inclined to have poor levels of employee engagement and contentment, which can eventually lead to lower performance

According to a research study published by Kettunen and Pajarinen (2021), organizations that do not use knowledge management methods are destined to face higher expenditures than those that do. According to Ali et al. (2021), firms that do not employ knowledge management methods have a greater tendency to make bad judgments due to a lack of accessibility to crucial information. According to a study conducted by Akwada et al. (2021), companies that do not effectively manage their knowledge might face further costs because of duplication of effort, inefficient procedures, and rework.

Other studies indicated that when employees leave or retire, one of the implications of poor knowledge management despite heavy investment is that of losing valuable expertise and intellectual capital. This loss other than lowering organizational performance, it can stifle decision-making ability, creativity, and the ability of the firm to react to changing marketplace circumstances (Darwish & Singh, 2019). This in essence will hinder problem-solving capability in an organization and make it hard for it to leverage its collective knowledge to ward of

competition. Equally, organizations without efficient practices of knowledge management may fail to actually spot with finality the emerging patterns, embrace the best practices in the market, and utilize new opportunities in terms of creativity (Kianto, Sáenz, & Aramburu, 2019). This will spell doom for any organization in this 21st-century.

Employees although ready and eager to work may struggle to get the right information that they require for their work if adequate knowledge management methods are not implemented, which ultimately leads to inefficient processes and redundant efforts. This can result in a decline in output and results in the wastage of resources (Lee et al., 2019). In another study by Hariri, Obeid, and AlNawas (2019), a lack of management of knowledge in any organization has a detrimental influence on employee morale and productivity and stresses the need for sharing information systems and platforms to tackle this issue. One of the negative impacts is infighting, in which each party seeks to prove a point in the absence of specific, precise information. Another effect is inefficient workflows may result and superfluous efforts being witnessed. Employees might not be able to find the facts they need to complete their assignments properly if there is no central knowledge database and suitable knowledge-sharing frameworks. This can lead to wasted periods of time, diminished growth, and less flexibility in the organization to compete with others (Liao et al., 2018)

CONTRADICTIONS

Impact on Financial Performance: Some research has established a link between knowledge management techniques and financial performance (e.g., Subramaniam & Youndt, 2005), while others have found no link (e.g., Gold et al., 2001). While several studies have claimed that good knowledge management improves innovation skills (e.g., Fosfuri & Tribó, 2008), other research has revealed a limited or no significant association between knowledge management and innovation performance (e.g., Chou, 2011). Chong, (2016) in his study implies that effective knowledge sharing and collaboration improves an organization's ability to innovate. Other research, however, shows difficulties in determining the direct influence of knowledge management on creativity and invention (e.g., Kianto, Sáenz, & Aramburu, 2017).

Moderating Factors: Various studies have discovered a variety of moderating factors that can impact the relationship between knowledge management and performance. Some research, for example, has identified organizational culture (e.g., Heisig, 2009), leadership support (e.g., Goh & Richards, 1997), and the level of information technology adoption (e.g., Avdic & Nilsson, 2014) as potential factors that may influence the impact of knowledge management on performance. While some studies have found a positive impact of knowledge management practices on performance (e.g., Ipe, 2003; Hsu & Sabherwal, 2012), others have found no significant relationship (e.g., Wetzels, 2001; Alavi & Leidner, 2001) or even a negative association (e.g., Tallon, 2014). These disparities may be related to differences in how knowledge management is implemented, the types of techniques used, or the organization's specific situation.

Knowledge Sharing and Performance: One of the most important aspects of knowledge management is knowledge sharing. Some research has found that higher levels of information sharing improve performance (e.g., Bock et al., 2005; Cho, 2016; Van den Hooff & De Ridder, 2004), whilst others have found weaker or inconsistent associations (e.g., Chong, 2013; Husted, 2015; Cabrera & Cabrera, 2005; Cummings, 2004). Concerning knowledge absorption and performance: The ability of an organization to take in external knowledge and incorporate it within itself is crucial for performance enhancement. While some studies revealed a favorable relationship between information absorption and performance (e.g., Zahra & George, 2002; Wuyts et al., 2005), others found no association (e.g., Schwab & Sydow, 2018) or even negative impacts (e.g., Verwaal & Nijssen, 2006). These contradictions may be explained by the intricacy of knowledge absorption processes and the changing nature of the external environment.

Knowledge Management and Organizational Culture: Organizational culture can have a substantial impact on the effectiveness of knowledge management programs. While some research has shown that a supportive organizational culture improves knowledge management and performance (e.g., Gold et al., 2001; Subramaniam & Youndt, 2005), other research has shown that a misalignment between culture and KM efforts can result in suboptimal outcomes (e.g., Huang et al., 2009). Organizational Culture's Role: Some studies stress the need to foster a knowledge-sharing culture in order to enable successful knowledge management techniques and, as a result, higher performance (e.g., Connelly, Zweig, Webster, & Trougakos, 2012). Another study, on the other hand, suggests that a strong corporate culture can stifle the openness required for successful information sharing (e.g., Husted, Michailova, & Minbaeva, 2018).

The mixed findings witnessed might be a result of contextual differences like organizational size and the location of the business. Equally, it might be due to the methodology adopted where some researchers used subjective measures like interviews while others used objective measures like using indicators for instance financial indicators. On the other hand, the differences might emanate from the fact that some studies captured short-term effects while others captured long-term effects further justifying the differences.

CONCLUSION AND RECOMMENDATION

In conclusion, from the reviewed studies knowledge management practices are crucial to the survival of any organization and its absence spells dire consequences. For instance with its practice, it results in an organization being able to store, capture, and share information, it also enhances work efficiency and productivity of both the organizations and workers, and it fosters a culture of collaboration and learning. It equally, helps in fostering institutional adaptation and innovation activities and finally, it contributes to the overall success of the organization. On the other hand, if knowledge management practices are not embraced in an institution, then it results in low organizational performance, it stifles innovation activities and initiatives, it also causes knowledge loss and it ultimately results in higher expenditures for the organization. Due to the fact that there were mixed results from the findings, it's therefore imperative for all organizations to ensure knowledge management systems are in place for the posterity of their operations and critical factors and moderators should be identified to control the desired outcomes.

LIMITATIONS OF THE STUDY

This study is limited in nature because it only focussed itself on secondary information from studies that cut across various sectors in the world and sometimes generalisation might prove difficult due to different contexts and methodologies adopted by those studies. Equally, there were contradictions or mixed findings in the results hence impairing the ability to conclusively arrive at a position.

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Recruitment and selection trends within the Eastern Cape automotive sector

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ABSTRACT

The human resource function is a significant contributor to any business operation. However, acquiring suitable individuals to fill vacancies in these businesses can be a challenge. Research into recruitment and selection practices is also lacking and answers to staffing-related questions are considered insignificant. The purpose of this research study was to explore the recruitment and selection trends for the employed within the Eastern Cape automotive industry.

This study adopted an interpretivist descriptive qualitative research approach as in-depth information was sought on the topic under investigation. A semi-structured interview was used to collect information from 15 respondents directly involved in recruitment and selection practices. The Statistical Package for the Social Sciences (SPSS) version 25 was used for descriptive analysis to summarise and interpret specific data. The qualitative data analysis method used in this study was thematic analysis, which interpreted the open-ended answers provided.

The main findings were that LinkedIn and other social media platforms are primary sourcing tools to attract younger candidates and expand the talent pipeline. In contrast to previous research done on this topic, this study found that competency-based online interviewing, referencing checking and the use of psychometric tests were the most popular selection tools. It is recommended that HR practitioners re-relook their thinking about staffing and start operating as change agents in the transition into the I4.0. HR practitioners need to develop their knowledge and skills in digitised recruitment and selection, as well as improve their communication and decision-making skills. The study's main limitation is the narrow focus on the automotive sector and the Eastern Cape province of the country.

Key words: recruitment, selection, staffing, automotive, human resources

INTRODUCTION AND BACKGROUND TO THE STUDY

The success of organisations in today's business environment is strongly reliant on their employees' collective and individual efforts. Therefore, organisations must acquire quality and effective employees as they are crucial for organisational success (Singh, 2019). For this reason, staffing activities are a crucial part of the human resource management (HRM) function as they ensure that the best talent is acquired and retained in organisations (Boxall and Purcell, 2016). Such human capital investment initiatives are essential for organisations to ensure they have the right people in the right positions, which can help to enhance their productivity and competitiveness (Starr, Ganco and Campbell, 2018).

Staffing practices also enhance employee performance, employee engagement and employee satisfaction (Al-Bdareen and Khasawneh, 2019; Kim, Aryee, Loi and Kim, 2013). Organisations are, therefore, urged to invest in their staffing practices to effectively manage their human capital. By introducing employees of high ability and motivation into an organisation it provides the individual, their team, and the entire organisation the opportunity to perform optimally (Pahos and Galanaki, 2019).

However, finding the right quality and effective workforce is a problem in South Africa (SA). There is a difficult conundrum of having a surplus of low and unskilled labour and an imminent shortage of highly skilled employees that have the required knowledge and skills to perform at optimal levels (Brunello and Wruuck, 2021). Furthermore, the Fourth Industrial Revolution (I4.0) has resulted in higher skills demands within the national manufacturing sector, resulting in employers needing to upskill and reskill their employees. These organisations have, therefore, needed to make the HRM function an integral part of their business strategy (Maisiri and Van Dyk, 2021).

The key focus area of this study is the Eastern Cape (EC) automotive manufacturing industry. This sector has a long and stable history in the country, being a major employer and driver of economic development (Mvoko, 2019). In 2021, the automotive industry contributed 4.3% to SA's gross domestic product, with the export of vehicles and automotive components equating to 12.5% of the country's total exports being a record amount of R207.5 billion. The national automotive supply chain consists of seven original-equipment manufacturers (OEMs) and Tier 1 components suppliers, which are large multinational companies supplying subassemblies, consisting of many parts, to the OEMs. The smaller Tier 2 and 3 components suppliers supply the Tier 1 suppliers (Obermeyer, 2022). The EC automotive sector consists of approximately 120 firms that differ in their manufacturing capabilities. These include four OEMs, 59% Tier 1 suppliers, 24% Tier 2 suppliers and 10% Tier 3 suppliers (Mvoko, 2019).

In recent years, this industry has had to make substantial changes to its modus operandi. There has been increased production pressure, significant technological advancements, and a rise in emerging markets. These have meant that advanced production techniques are increasingly needed (Gonyora, Migiro, Mashau and Ngwenya, 2022; Ikome and Laseinde, 2020). Within this context, the national automotive industry is facing various challenges, as it encounters new and improved global technology, changing environments and an increased level of competitiveness. Despite the considerable potential of the increasing middle-income class of consumers in the country, the automotive industry simultaneously faces weakened market conditions (Barnes, Black, Comrie and Hartogh, 2018).

To cope with these challenges the skill set of the automotive industry workforce has become a critical factor (Kochan, Lansbury and MacDuffie, 2018). Studies are confirming that the manufacturing industry needs a mindset change regarding the skills their workforce requires to significantly contribute to the successful adoption of I4.0 in the industry. To manage, the workforce requires transitional skills, such as coding skills, data analytics, human-machine interaction and an understanding of information technology (Maisiri and Van Dyk, 2021; Selamat, Alias, Hikmi, Puteh and Tapsi, 2021). Other studies have confirmed the importance of the workforce having soft skills to effectively transition into the I4.0. Amongst others, these include agile decision-making and accountability, the ability to quickly adjust to change and act, collaboration, communication, critical thinking, cross-cultural ability, emotional intelligence, lifelong learning, multi-skilling, problem-solving, self-directedness and teamwork

(Maisiri and Van Dyk, 2021; Maisiri, Darwish and Van Dyk, 2019; Krot, Mazgajczyk, Rusińska and Woźna, 2018; Kazancoglu and Ozkan-Ozen, 2018; Carter, 2017).

These various challenges faced by the EC automotive sector have a direct impact on the staffing practices employed to secure its workforce. Therefore, understanding the current recruitment and selection trends in the EC automotive industry is crucial to improving the sector's overall performance. Recruitment and selection practices are significant and critical functions within the HRM field (Maisiri and Van Dyk, 2021; Al-Bdareen and Khasawneh, 2019; Pahos and Galanaki, 2019; Starr *et al.*, 2018). Specifically, the HR practices of recruitment and selection are known to be able to shape the continued success of the automotive industry (Puchert, van Niekerk and Viljoen, 2022; Chalikias, Kyriakopoulos, Skordoulis and Koniordos, 2014).

Knowledge management is a critical driver of organisational performance and a critical tool for organisational competitiveness, profitability, and survival (Jarzabkowski and Kaplan, 2015; Omotayo, 2015). Without adequate and reliable knowledge of what is going on, business decisions can likely be flawed. Having adequate knowledge of the optimal recruitment and selection practices to implement is a critical business need. However, this need exists within the context of declining staffing research, specifically within the business context (Schreuder and Coetzee, 2010). There are a few local articles, but these have predominantly been done within public administration. The last article to be published on recruitment and selection within the EC was done by Louw (2013). South African HRM practitioners need to be able to transform and rethink their roles. They need to be driven by the demands of I4.0 to ensure they add value to the organisation. This means they need to be business-driven change driven, data-driven, resilient and technology-driven (Schultz, 2021; Karasek, 2020; Patel, 2019). Without adequate knowledge of the status quo in vital areas of its functionality, this transition within the HRM field seems improbable.

It is hence not surprising that there has been a call for researchers to heed the business community's need for current staffing-related research, focusing on predicting emerging challenges and offering viable solutions to these challenges (Pietersen, 2018; Vernon, Hocking and Tyler, 2016). Based on this quest for more information, this study seeks to expand on the study done by Louw (2013) and establish if the recruitment and selection trends have changed over the past decade. This study, therefore, contributes broadly to staffing research and specifically to enhance the understanding of optimal recruitment and selection practices within the automotive industry. The primary objective formulated for the study was to investigate the nature of recruitment and selection within the Eastern Cape automotive industry. The secondary objectives were to determine the recruitment and selection methods used by businesses in this sector by appreciating any challenges experienced within recruitment and selection and to establish strategies employed to overcome these challenges.

LITERATURE REVIEW

Conceptualising Staffing, Recruitment and Selection

According to staffing expert Ployhart (2006: 868), staffing is “the process of attracting, selecting, and retaining competent individuals to achieve organisational goals.” Staffing consists of three main activities: recruitment, selection, and career planning (Kamran, Dawood and Hilal, 2015). Whilst both are focused on identifying and securing suitable candidates to

meet the human resource (HR) needs within organisations, recruitment and selection are two distinct processes.

Recruitment is the first part of the staffing process. Its primary aim is to source a wide pool of suitable candidates, whilst selection focuses on choosing the best candidate from this pool (Nel, Werner, Botha, Chinyamurindi, Dodd, Du Plessis, Mdindela-Majova, Mey, Poisat and van Hoek, 2021). A well-structured recruitment process ensures that the organisation attracts the best talent with the right skills for specific jobs. The recruitment process, therefore, should be based on predetermined standards, such as job requirements, descriptions, and profiles (Horwitz, 2017). Organisations can choose from using various internal and external sources of recruitment. Internal sources include existing employees, referrals, and former employees. A wide variety of external sources are available, including advertising, e-recruitment, recruitment agencies, tertiary institution recruiting, professional bodies and internship or learnerships (Nel *et al.*, 2021).

In the automotive industry, the most popular recruitment technique used is online classifieds (Wolniak, 2018). In a study within the Malaysian automotive industry, a significant relationship was found between digitalization technologies and recruitment. Using recent technologies accelerated the recruitment procedure, reduced expenses, prompted a better user experience, and enhanced the overall effectiveness of the staffing practice (Jayabalan, Makhbul, Nair, Subramaniam and Ramly, 2021). The Indian auto-component firms have also embraced e-technological tools in their staffing practices. E-recruitment sources used include the intranet, job portals, company websites and social networking sites (Kurbetti and Maheshkar, 2021).

Selection is the second activity within the staffing process. The primary goal of the selection process is to determine which candidates will provide the highest value to the organisation over time (Nel *et al.*, 2021). Like the recruitment process, the selection process should also be based on predetermined standards, such as job requirements, descriptions, and profiles (Horwitz, 2017). The selection process should focus on achieving an optimum employee-job fit by choosing employees whose knowledge, skills, attributes, attitudes, and experience correspond to the requirements of vacant jobs. This can be done by implementing different tests and selection interviews, which can assist in selecting the person whose traits fit the job requirements (Al-Bdareen and Khasawneh, 2019). Oral interviews, whether structured or unstructured, are used to judge the candidates' verbal interaction and communication abilities, as well as their response rate in answering questions during the interview, and their ability to express their ideas fluently (Blackman, 2017). The best predictors for selection purposes are the methods specific to individual jobs, such as structured interviews, job knowledge tests, work sample tests, and biodata. These are deemed more valid than the more general psychological measures, such as ability and personality tests (Sackett, Zhang, Berry and Lievens, 2023).

A relationship between secondary education results, specifically within the Mathematics and Science subjects, was found to be an effective screening method in the selection of automotive operators in SA (Puchert, Dodd and Viljoen, 2017a and 2017b). Within the European automotive sector, the most popular selection method was the curriculum vitae (CV) and its cover letter (Wolniak, 2018). Indian auto-component firms have found e-selection techniques have simplified the selection process, reduced time and cost implications and have made it profoundly more effective (Kurbetti and Maheshkar, 2021). A multiple-stage selection method was used to screen a vast pool of apprentice applicants within the automotive industry. The

selection process comprised five phases: an application review, rating of the application documentation, aptitude testing, skills-based teamwork assessment and interviews (Puchert *et al.*, 2022).

Both the recruitment and selection processes commence with the recognition of the need for labour (Ekwoaba, Ikeije and Ufoma, 2015). There are no ideal staffing practices that can be used in all organisations and in all circumstances. Rather, the optimal staffing practices and methods to be employed vary according to the size, potential and activities of the organisation, as well as the number of people to be employed, conditions of the labour market, economic conditions, and government legislation at the time (Sule and Elizabeth, 2013).

The HR practices of recruitment and selection are the first steps in an organisation's talent management. Talent management refers to the activities and processes used by organisations to attract, develop, and retain talented employees (Collings and Mellahi, 2009). It involves identifying the skills and abilities required to achieve organisational goals, creating development programs to enhance employees' capabilities, and providing opportunities for career advancement (Asgari, Hunt, Lerner, Townsend, Hayward and Kiefer, 2021). Talent management is becoming increasingly important in today's competitive business environment as organisations need to ensure they have a skilled and engaged workforce to succeed. Effective talent management is vital as it affects the organisation's overall productivity and performance (Vardi and Collings, 2023).

The staffing process helps fit the employee with their job, resulting in many positive behavioural outcomes, including job satisfaction, organisational commitment, job involvement, employee engagement and organisational citizenship behaviour. Many studies have confirmed this strong correlation person-job fit, which is initially achieved by the staffing process, and the emergence of these positive behavioral outcomes (Al-Bdareen and Khasawneh, 2019; Biswas and Bhatnagar, 2013; Kim *et al.*, 2013; Abutayeh and Al-Qatawneh, 2012; Hoffman and Woehr, 2006).

According to Puhovichova and Jankelova (2020), the staffing process is becoming more complex with advances in technology, globalisation, changing demographics, and the heightened I4.0 skill set requirements. The COVID-19 pandemic commenced the move by many businesses to use electronic platforms for recruitment and selection. Social media platforms have become a commonly used facility for staffing activities as they effectively facilitate the process as well as keep the operating expenses to the minimum (Abbas, Shah and Othman, 2021).

The issue of recruitment and selection in many organisations is a matter of concern that needs attention (Lievens and Chapman, 2019). These activities are costly to implement and require substantial time and effort. Nevertheless, getting these decisions wrong is also a costly exercise for any organisation. Poor staff selection decisions can have significant costs for a business. These include decreased organisational competitiveness, additional recruitment, and selection costs, as well as the costs involved in re-training employees following an ill-fit match of an employee to a job (Ock and Oswald, 2018; Mueller and Wolter, 2014; Sutherland and Wocke, 2011).

RESEARCH METHODOLOGY

This study employed an interpretivistic qualitative research approach to answer the research questions. This paradigm's primary focus is how individuals attempt to make sense of meanings and subjective intentions in each context or the world around us (Bryman, Bell and Hirschohn, 2021). This approach enabled the researchers to gauge the respondents' opinions on the nature of the recruitment and selection methods and techniques used within the Eastern Cape automotive manufacturing sector. The use of this paradigm and approach enhanced the validity of the findings as honest answers and responses were facilitated through a subjective open-ended research strategy (Collis and Hussey, 2021).

The study used HR Managers from businesses within the Eastern Cape automotive sector that employ 50 or more employees and have a staff member designated specifically, or in general, to the recruitment and selection function. Using snowball sampling, a sample of 15 respondents volunteered to be part of this study. The snowball sampling technique hinges on receiving recommendations from the initially chosen respondents to identify other people thought to also be suitable to participate in the study (Bryman *et al.*, 2021).

Data for this study was gathered through semi-structured interviews. This allowed the researchers to gain more detailed information from the respondents as the interview guide included open-ended questions in which the participant was able to explain their answers (Collis and Hussey, 2021). Data collection was done through face-to-face interviews recorded using audio equipment. These recordings were transcribed into a written format for convenient analysis and presentation purposes. The semi-structured interview guide is divided into three sections. The first section provides general information about the organization. The second section of the interview guide consists of 19 tick-box questions with a dichotomous format ('yes' or 'no') requesting information on the recruitment and selection methods used. The 14 open-ended questions in the third section also related to the methods used but particularly probed the respondents on the recruitment and selection challenges experienced and the strategies used to overcome these. This allowed the researchers to elicit more in-depth responses from the respondents on the recruitment and selection practices employed within the business.

This study adopted the research methodology followed in the Louw (2013) study and involved both descriptive quantitative data analysis and thematic analysis. The data from the first two sections of the interview guide were analysed using descriptive statistics and presented in frequency distribution tables. The Statistical Package for the Social Sciences (SPSS) version 25 was used to conduct the descriptive statistical analysis of the tier, length of business operation and the total number of employees. The descriptive analysis of the recruitment and selection methods used was also conducted in this way. This simplified the data into a more sensible summary making it more readable and understandable (Ghauri, Grønhaug and Strange, 2020). The data from the third section of the interview guide was thematically analyzed. According to Bryman *et al.* (2021) analysing this type of data entails organising, integrating, and examining it systematically. To do this the researchers coded the data and then looked for patterns and connections among the specific details. The researchers advanced generalisations connecting specific data to concepts and identified overarching trends and themes to analyse the data. With the aid of the analysis, the researchers were able to deepen their understanding which was needed to address the research questions posed within this study.

FINDINGS

The demographic characteristics of the respondent's employer organisation are shown in Table 1. For the sake of anonymity, the OEMs were grouped with Tier 1 suppliers. The sample consisted predominantly of Tier 2 automotive businesses (66.66%), with three (20%) Tier 1 and two (13.33%) Tier 3 businesses. Over two-thirds of the businesses (73.33%) had been in operation for between 20 to 80 years. Only one business (06.66%) had been operating for longer, and another three for less than 19 years. Six of the businesses (40%) had less than 500 employees, with four (26.66%) having between 501 and 1000 employees. The remaining five businesses (33.33%) have over 1001 employees. Of these five businesses, three were Tier 1 and two Tier 2 employers.

TABLE 1:
SAMPLE DESCRIPTION

Variable		Respondent Numbers	N	%
Tier	1	R4-5 & R13	3	20.00
	2	R1-3, R6-11 & R14	10	66.66
	3	R12 & R15	2	13.33
Length of business operation	0 – 19 years	R6, R12 & R15	3	20.00
	20 – 40 years	R1-2, R7-8 & R14	5	33.33
	41 – 80 years	R3-5, R9, R11 & R13	6	40.00
	81 – 120 years	R10	1	06.66
Total number of employees	0 – 500	R6-8, R12, R14-15	6	40.00
	501 – 1000	R1-3 & R11	4	26.66
	1001 +	R4-5, R9-10 & R13	5	33.33

Source: Authors' own compilation

In Louw's (2013) study, nineteen recruitment and selection officials were interviewed. This original study's findings are reflected in Table 2. The findings from this follow-up study are also reflected in Table 2, albeit on a slightly smaller sample ($n = 15$). A comparison between the findings of these two studies does reveal that both the recruitment and selection methods have changed over the past ten years.

TABLE 2:
RECRUITMENT AND SELECTION METHODS IN USE

Human resource function	Recruitment and selection method	% in the original study	% in this study
Recruitment	Have a clear recruitment procedure	100.00	93.33
	Walk-ins	00.00	6.66
	Referrals	00.00	86.66
	Graduate recruitment	05.26	66.66
	Newspaper advertising	89.47	66.66
	Internet recruitment	26.32	100.00
	Headhunting	10.53	60.00
	Recruitment agencies	84.21	100.00
	Content with processes	-	80.00
Selection	Application blank	100.00	100.00

	Interviews	94.73	100.00
	Reference checking	84.21	100.00
	Psychometric assessments	63.16	87.00
	Presentations	21.05	53.33
	In-basket and/or role-play	10.53	40.00
	Assessment centres	73.68	46.66
	Content with selection processes	-	80.00
	Efficient selection policy	-	93.33
	Innovative selection techniques	-	66.66

Source: Authors' own compilation

Recruitment findings

There are several noticeable changes in the profile of recruitment methods employed. The use of referrals, graduate recruitment and headhunting has significantly increased. There is also increased usage of internet recruitment and recruitment agencies, whilst newspaper advertising is being used to a less extent than before.

In the original study, none of the respondents indicated that they made use of the referral system as a recruitment method. In this study, over 86% of the respondents indicated they did find value in this method, specifically at the operator level. The motives for the use of this recruitment method are in line with other research that established positive referrals being driven by intrinsic and prosocial motives (Van Hoya, 2013; Breugh, 2008; Grant, 2008). This was well summarised by one respondent as follows:

“Our employees like to help us with referrals as they want to help us make sure that we hire other people that have a good fit with the organisation.” [R7]

The use of the headhunting method also saw a substantial increase (over 50%) in this study, in comparison to Louw's original 2013 study. However, it is no longer the traditional form of headhunting, but headhunting is now predominantly done through sourcing of candidates through social media. Two respondents expressed this succinctly:

“We don't really use printed advertisements so much anymore. Maybe 50-60% of the time. We use LinkedIn 100% of the time.” [R13]

“We use LinkedIn to identify potential candidates. Basically, for headhunting. Especially for senior management jobs.” [R5]

According to respondents, social media platforms, like LinkedIn, have the potential to allow recruiters to attract passive and semi-passive candidates. This is in line with recent research done both nationally and globally (Koch, Gerber and De Klerk, 2018; Houran, 2017; Nikolaou, 2014). South African recruiters, and their international counterparts, view LinkedIn as central to their recruitment processes. However, LinkedIn is not used as a stand-alone recruiting tool as the candidates' information must then be sourced via other social media platforms.

The most common recruiting method for attracting candidates is advertising (Nel *et al.*, 2021). Using both print and internet media, the study's respondents indicated that they could increase the impact of their communication and ensure a larger pool of candidates. This study has shown that newspaper advertising is used less frequently than a decade ago when the original study was done. Nevertheless, newspaper advertising is still regarded as an effective way to

broaden the recruitment net beyond the borders of the EC province. One respondent expressed this succinctly:

“We put ads all over our website, social media, and the newspaper to call on people to apply and we run them for as long as possible so that many candidates can respond.” [R10]

Another respondent supported this with the next statement:

“Advertising is used because it is good for each employment level. It allows one to search for talent far and wide. So as an organisation, we are not limited when we put up our adverts which can travel all over the country and not just here in the province.” [R3]

In the larger businesses of the sample, namely the three Tier 1 organisations (R4, R5 and R13), radio advertisements were utilised to connect with rural populations for the businesses to improve their recruiting strategies. The use of this specific advertising method was explained.

“We have used radio to announce vacancies in nearby communities. We don’t do this often – not for all positions – but when we have to fill positions like at the operator level, this method can be useful to get more people in the public aware of our need to employ at this level and to get the candidates that are appropriately qualified.” [R4]

Whether used internally or by recruitment agencies, online portals such as LinkedIn, Careers24, and PNet are used significantly more frequently (100%) and for a wider range of positions than a decade ago. As one respondent added:

“We post on our website and Facebook, LinkedIn jobs, Indeed Jobs, and JobVine on Twitter. Being active online expands the pool that we can get for candidates, and it is also good for growing the awareness of our company as one that is conscious of the digital space and one that participates in progressive ecosystems of communication.” [R5].

To provide business employers with efficient service, HR processes need to be automated through digitisation. This suggestion has been put forward by many local and international researchers (Mefi and Asoba, 2021; Schultz, 2021; Papageorgiou, 2018; Xu, David and Kim, 2018), and certainly seems to be in operation within the EC automotive sector as outlined by the following respondent:

“In the firm, we are advancing with technology and part of that means that we must meet all talent where they are. People are all over the internet and social media so it makes a lot of sense to be also there on the internet and online to meet the prospective candidates and target them there so that they can show interest in the opportunities and packages that we offer. Hopefully, we get to shortlist good candidates, so at least we can compete for young engineers and diagnostic people.” [R3]

In the qualitative interviews, it was confirmed that there is now a greater collaboration with recruitment agencies than was seen a decade ago. Given the scarcity of skills, the narrow talent pipeline, and organisational pressure on the automotive industry, these agencies offer a faster turn-around time, making collaboration a necessity.

“Employment agencies always interact with a bigger pool of talent, and they study all the requirements that we need. It is easy to use them because it cuts the labour for us but also it ensures that we are getting the kind of people that will contribute greatly first in business continuity and also in settling perfectly at our firm.” [R2].

Besides these time-saving and larger pool advantages, another respondent made clear another key benefit of using recruitment agencies.

“Company culture is very important in the automotive industry. An intermediary is given the brief of the kind of mindset and manpower that we need in the shop. This is something that would take us a long time to achieve so it is better to sort of rent out that responsibility to some expert to do it. But we can rest assured that when we do, we are like 10 steps ahead because they are going to scout for the talent that is compatible with us.” [R10]

This was confirmed by a Tier 1 respondent in the following way:

“We have a retainer with reputable employment agencies who advertise, shortlist, and interview people who can fill the positions that we have at the organisation. The employment agencies help us mostly with high-level positions because we have limited expertise in the province and professional help can be required here and there to make sure that we identify the high-grade trade talent as swiftly as possible.” [R4].

Regarding having clear recruitment procedures, only one respondent (R15) in the current study noted that the business did not have well-defined procedures. This same respondent and two others (R7 and R12) stated that they were not content with the recruitment processes in the business. These three businesses have the youngest tenure profiles, which may account for this perception. One respondent (R15) did note that improving the recruitment procedure had been highlighted as a key improvement area within the business' HR department.

Selection findings

In terms of selection methods, the results show less change since the original study. However, reference checking, psychometric testing, presentations, and role-plays are more frequently being used, as shown in Table 2 above. Assessment centres are less common than 10 years ago, and the nature of interviewing has altered. The results from this study reveal that online interviewing is the predominant method used as well as a competency-based style of interviewing.

“We learnt a lot from Covid. We used to always fly people here for interviews but now we use online platforms to do them. We use mostly Teams but also sometimes Zoom.” [R10]

“To assess a candidate's qualifications, questions are created to measure their competence” [R1]

A second respondent shed more light on this issue.

“We use a competency-based questioning method in interviews. It's the scenario, task, action, and results (STAR) method. Candidates must talk about precise examples, the action they took and the outcome. This way we get a real sense of the candidate's knowledge and problem-solving abilities.” [R12]

The results of this study show that competence assessment questions are developed to determine a candidate's normal behaviour. The goal of this interviewing method is to choose individuals who will act in a way consistent with the behavioural abilities required on the job and is well supported in the literature (Harky, 2018; Albrecht, Bakker, Gruman, Macey and Saks, 2015; Gatewood, Feild and Barrick, 2015).

This study showed an increase (23%) in the use of psychometric assessments within the firms' selection processes. Only two firms (R12 and R15), being the two youngest in operation, in the sample did not use psychological testing as part of their selection process.

“If crucial procedures like psychometric testing are not carried out, validity and reliability may be called into doubt.” [R8]

Whilst CVs are requested to establish that applicants have the required knowledge, skills or experience needed for the job the study’s respondents highlighted that validating these had become a necessity. Some respondents indicated that this was due to doubt of the credibility or standard of the qualifications gained, whilst others added that the current level of competence often needed to be confirmed. In line with this, reference checking has also increased in popularity in the EC automotive sector. This was confirmed by one respondent in the following admission:

“We need to be very careful when hiring staff. We have huge pressure from our unions. We need to be sure that we have taken on the right person as getting rid of that person later (if they don’t make the grade) is really not an option here. So, applicants can submit wonderful qualifications and show all sorts of achievements on their CVs, but we have to validate these. We use reference checking and psychometric testing to do this. We need to check the person can still do what they say they can do - at the same level of competence.” [R13]

The use of psychological testing has become a popular selection method within the automotive industry (Puchert *et al.*, 2022; Puchert *et al.*, 2017a, 2017b). Inconsistent standards, a general mistrust of the school grades, and the inability to fairly compare applicants using their educational attainment are the primary reasons for this trend (Mueller and Wolter, 2014; Siegenthaler, 2011). Another benefit of psychological testing highlighted by several of the respondents was adequately summarised as follows by one respondent:

“Psycho testing is great – we do it online and so wherever the candidates are they can do it. Even if they are in Gauteng or Idutywa, they can go to an internet café and get it done. It is a very convenient way of screening out those candidates that don’t make our entrance requirements.” [R11]

The use of presentations and role-plays as selection methods has also increased (i.e., by approximately 30% on average) over the past decade in this sector. This trend of more regular usage of selection methods that can add information and/or validate information presented by applicants also links with previous research where the protection of the employing organisation needs to be guaranteed. Lying and/or misrepresentation on application forms or CVs is a major HRM risk. Globally, it has been confirmed that 86% of employers have experienced this form of fraud in their selection processes (Trindale, 2015). In a new question posed on the likelihood or necessity of using innovative selection techniques, the vast majority (66.66%) indicated that this was true. This can be linked to the increased usage of techniques such as reference checking, psychometric testing, presentations, and role-plays.

This respondent explained it well:

“We need to think outside the box nowadays. We even do our interviews and role-plays etc online. This saves on flight and accommodation costs, but we still get a good real sense of the person we are considering so our overall judgement isn’t impaired. It’s working smart not hard that counts!” [R14]

However, the use of assessment centres has significantly dropped (almost 30%) since the previous EC study. This drop could be explained by these selection measures not achieving their desired impact. This was established in a recent study within the Public Prosecutor’s office (Bazana and Reddy, 2021). Competency-based assessments, however, are not as

valuable if they cannot be directly related to the job, but instead assess broader behavioural and other unrelated past events (Bazana, 2016).

The three new aspects also revealed interesting information. The same three respondents (R7, R12 and R15) that indicated they were not satisfied with the business's recruitment processes said the same about the business' selection processes. Furthermore, the same respondent (R15) who did not believe the business had a clear recruitment procedure also indicated that the selection policy was not efficient.

PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

The findings from this study indeed confirm that staffing practices in the EC automotive industry have changed over the past decade. Recruitment has become more advanced, taking on a more online modality. This was seen in the increased usage of online social media platforms in headhunting, internet recruitment and through recruitment agencies using these tools. Even newspaper advertising had an online component as these media distributors have moved into the social media space. Regarding selection, the interviewing techniques being utilised have also altered and become more technology based. Psychometric testing, presentations and role-plays have become more popular, often also being done virtually rather than the traditional face-to-face approach.

Based on the findings of this study, organisations in the automotive sector need to improve their adoption of technology within their recruitment and selection practices. This will increase their efficiency and appeal to the technology-savvy youth in the country, attracting them to apply for their vacant positions. The recruitment and selection trends identified in this study necessitate that HRM practitioners transition into the I4.0 and act as change agents in this process. This means that HR staffing processes need to become automated through digitisation. HR practitioners also need to re-relook their thinking about how they go about doing things and start operating in a manner appropriate for this automated age. HR practitioners will need to check that they have the requisite skills, become highly flexible and be open to continuous learning.

The practical implication is that HR practitioners involved in staffing must possess adequate knowledge and skills to be experts in these online recruitment and selection technologies. Whether they are advising senior management in the purchase of these technologies for in-house use or negotiating with recruitment agencies on the optimal ones to use, this knowledge and skill will be their competitive advantage. Furthermore, HR practitioners will need to develop high-level communication and decision-making skills to be able to optimise the online staffing methodologies and be able to source the correct staff for their organisations. Automotive firms should also upgrade their software and equipment to reap the full benefits of the latest staffing technologies available.

The main limitation of this study is the narrow range of sectors and provinces sampled. The study only investigated the automotive industry whereas Louw's (2013) study had a broader population using various types of organisations from different sectors. Further research may reveal different profiles of the recruitment and selection methods being employed in different sectors and parts of the country.

CONCLUSIONS

The nature of recruitment and selection in the EC automotive sector has shifted over the past decade. Whilst some aspects have remained popular, such as interviewing, the way these staffing methods are employed has changed. The automation and digitization of staffing practices are clearly increasing. HR practitioners in the automotive industry, as well as potentially in other sectors, should take heed and commence learning these new skills and adapting their approaches to be ahead of the wave of transformation happening in this HRM space.

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A new human resource management frontier: How to have a religiously inclusive workplace?

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ABSTRACT

This paper reflects on current ideas in the literature concerning what human resource business partners can do to help create more religiously inclusive workplaces. Religion has been a largely ignored aspect of diversity and inclusion discourses, with issues regarding race and gender justifiably at the fore. In a diverse, rights-based society with a population with high levels of religious affiliation, issues are bound to emerge regarding the observance and manifestation of religious belief at work. Most of these requests will be accommodated in dyadic exchanges between managers and employees. While few employees may be involved in disputes regarding religious inclusion, the contestations may be particularly deeply felt and have lasting negative implications for an organisation. This paper presents options and guidelines for developing more religiously inclusive workplaces to benefit employees and organisations, and to help South African organisations help South Africa to progress towards a better future.

Keywords: Religious inclusion, Human Resource Management, Diversity

INTRODUCTION

Human resource business partners have tended to consider organisational life as a secular activity and the workplace as an inappropriate context for conversations or manifestations of religious faith commitments. However, every employee brings their whole self to work (Syed et al., 2017). In a societal context that supports the assertion of individual rights and the foregrounding of personal identity, human resource business partners are now tasked with considering the best way to handle employees' expressions and manifestations of faith.

Most South Africans have a faith commitment associated with deeply held beliefs and values (Carrim, 2015). These beliefs and values inform the employees' attitudes and behaviour in their personal life and workplace. Religion may be the next frontier of diversity and inclusion work and an emerging human resource management challenge and opportunity. While issues regarding race, gender, sexuality, and disability will likely remain the most prominent diversity issues for some time, proactively managing potential issues regarding religion will help avoid divisive conflict and result in positive outcomes for organisations (Grim et al., 2014).

Theoretical mechanisms in understanding the move towards religious accommodation

As management scientists, we are challenged to consider the theoretical underpinning of our policy recommendations and the process of their implementation. A human resource business

partner may sincerely believe that proactively fostering a religiously inclusive environment is in the organisation's best interests and is consistent with its corporate culture. But conviction is a necessary but not sufficient condition for the success of interventions. What theoretical mechanisms help us understand the move from awareness to the implementation of religious accommodation programmes and policies? Two theories may be relevant here:

Organisational Adaption Theory (OAT) and Institutional Theory (IT). Organisational adaptation theory, rooted in resource-dependence and contingency perspectives, and institutional theory provide complementary perspectives to help us understand religious accommodation in the workforce.

Organisational adaptation theory (Scott, 2002, 2008) focuses on how organisations adapt their practices to environmental changes to secure necessary resources and maintain organisational effectiveness. It emphasises the role of individual organisations as active agents in responding to external pressures. In the context of religious accommodation, this theory suggests that organisations will engage in accommodation practices in response to environmental demands such as legal requirements, stakeholder expectations, and competition. Organisations are considered rational actors that strategically adapt their policies and practices to meet the evolving needs of their workforce and maintain legitimacy. The organisation learns, adapts, flexes, and responds to changing circumstances.

In contrast, institutional theory focuses on how organizations shape and are shaped by the institutional environment in which they operate – the coercive pressures they may experience from statutory enforcement or the normative pressure they may receive from professional associations or civic groups, reflecting broader social norms, values, and expectations (Battilana, Lexa, and Boxenbaum, 2009). Organisations face pressure to conform to prevailing institutional pressures to gain legitimacy and maintain social acceptance. In the case of religious accommodation, organisations are influenced by these normative, cognitive, and regulatory forces to adopt or reject policies concerning religious accommodation. Importantly for management scientists striving to use their research to help organisations progress for the betterment of all, is the role of isomorphism, whereby organisations imitate each other's practices to conform to institutional norms and achieve legitimacy.

This paper presents ideas regarding the facilitation of religious inclusion in the workplace to prompt human resource business partners to proactively review policies and strategies for the benefit of their organisations (Sharma and Singh, 2021) and so that employees of all faiths (or none) do not have to feel marginalised or excluded or forced to choose between their beliefs and their continued employment. The broad objective of this paper is to present the disparate ideas about religious inclusion in the workplace in an ordered way so that practical interventions can be discussed and debated. The challenging question emerging from this is: What interventions should be applied, and how will these interventions help to create religiously inclusive workplaces?

METHOD

To develop this paper, desk-based research was conducted, and no ethical clearances were necessary given that no interaction with human subjects or data was part of the process. The paper presents ideas from a literature scan to promote further discussion and research. Such preliminary research could include a systematic literature review, a survey of South African organisations, and a Delphi technique survey of subject matter experts. Academic databases

such as Web of Science and Scopus were used to search the scholarly literature to gather initial ideas. Linked-in was searched to ascertain practitioners' reference points when discussing religious inclusion at work. The following search terms were used: "religion" AND "workplace" AND "inclusion". The results of the academic search yielded few papers relevant to the objective of this paper. After eliminating papers that fell outside the scope of this paper, and recognising the lack of coherence across the papers, it was decided not to attempt a systematic review or a narrative review. A more bibliometric approach was indicated (Donthu, Kumar, Mukherjee, Pandey, and Lim, 2021), but this was later abandoned as it became clear that there were no empirical papers with evidence-based research on general religious inclusion interventions and that none of the studies originated in Africa. A bibliometric analysis with the application of mapping tools such as VOSViewer (Williams, 2020) was therefore not conducted. The challenge was to distil options for managers to consider and develop.

FINDINGS

Of the final set of 34 papers considered closely for relevance, only six (or 17.7% of the total) had been published in management journals. Most had been published in law journals ($n = 13$; 38.2%), followed by journals of religion ($n = 7$; 21%). The nature of each publication was either to present a theoretical framework, consider outcomes, or report research on a particular religious group in the workplace. There were multiple mentions of religious inclusion on Linked-in, but these were most posted by consultancies advertising a product or a presentation on diversity and inclusion that included a speaker addressing religious inclusion.

Papers relating to religious discrimination (e.g., Schneider et al., 2022) were not selected, as they fell outside the intended scope of the paper. Discrimination issues, which include protections against religious discrimination, are well covered in South African law and are enshrined in the Constitution (Henrard, 2021); they were not the focus of this paper and will not be rehearsed here because South Africa has some exemplary corporate protocols and a wealth of legal experience and proof cases about harassment, coercion, bullying, and unfair treatment in the workplace. That said, it is difficult to scope the extent of religious inclusion awareness or the gravity of religious discrimination issues in South African organisations. Organisational policies regarding discrimination seldom include religion, and when it is mentioned, the reference seems tangential. It is also difficult to establish how many complaints about religion-based harassment, bullying, and discrimination have been investigated and resolved in South Africa before reaching the Labour Courts.

Of course, as with sharing any deeply held personal information, implementing any religion-related inclusion initiative is full of potential complexities, especially if a range of diverse and conflicting belief systems are brought into the organisational space without careful management. Policies that promote acceptance of religious faith commitments and the accommodation of different religious observances facilitate a greater sense of acceptance of the 'whole self' of the employee and shift a burden from individual employees. Inclusion of those with religious faith commitments moves beyond diversity and harassment initiatives and involves two dimensions of inclusion (Shore, Randel, A, Chung, Dean, Ehrhart, and Singh, 2021). The first, belongingness, posits that inclusion results from feeling like you belong at an organisation, with full membership rights and privileges. The second, uniqueness, is about feeling that your unique skills and talents are appreciated as inclusion becomes an essential and legal concern in organisations.

Expressed beliefs and requests for religious accommodations may, however, conflict with business requirements, sensitise employees to implicit faith-based discrimination and result

in dissatisfaction that undermines efforts to create an inclusive workplace that ensures fair treatment for all employees by recognising the uniqueness of each while fostering a sense of belongingness in the organisation. Further, expressed faith-based beliefs may expose conflicts in organisations whose leaders have an explicit religious faith commitment or whose founding members are or were exponents of a religious ideology or set of principles that explicitly informs company values. Employees may balk at being expected to operate within a value system at odds with their own, even if they are not required to share the beliefs that underpin them. For example, faith-based directives in an organisation may specify, without identifying the source of the policy, that employees dress in a certain way (particularly at public functions), avoid eating certain foods in the workplace, or not work on certain holidays (even if desiring overtime). These stipulations may not incur objection if stated in neutral terms. Still, they may be interpreted as restrictive once the religious underpin is revealed.

We now consider different approaches and interventions that could help foster religious inclusion, including guidelines to avoid implementation problems and avoid conflict while bridging understanding, fostering a sense of community, retaining talent, and benefiting society.

CREATING A RELIGIOUSLY INCLUSIVE WORKPLACE

Multiple strategies are discussed in the practitioner-oriented postings on Linked-in. The postings are not individually referenced as they provide little or no further information and do not provide any research. Mentions in these postings are used as data points to be organised and commented upon. The postings can be classified under three broad themes, suggesting that human resource business partners can help create a religiously inclusive workplace by designing effective structures for flexwork, communication, and space allocation.

STRATEGY 1: FLEXWORK

Flexwork (a contraction of “flexible work arrangements”) is a familiar concept in the postpandemic workplace. Many organisations have already developed frameworks for flexwork, and knowledge workers have long adopted hybrid work arrangements. Flexibility regarding where (i.e., various permutations of hybrid and remote work), when (i.e., split schedules, flexitime scheduling, compressed workweeks) and how to work (i.e., job sharing schemes, volitional reduced hours) presents multiple possibilities for employees to plan for the observance of their religious obligations and holidays. For example, options include job sharing, where two or more employees assume responsibility for one position and manage their efforts so that each can work at different times and for shorter periods. Compressed work schedules, in which an employer works longer days on fewer than five days a week worth required to work for six- or seven-days work longer hours on five or six days a week. This is only sometimes possible, but it is very promising for employees seeking religious accommodations because it allows them to manage their schedules and celebrate their religious and cultural special days without engaging with organisational bureaucracy. The task is to revisit these policies and explicitly incorporate the possibility of using them for religious accommodation. The practical determination of an organisation’s ability and the cost effects of these different arrangements can be complex. Still, the necessity borne of the COVID-19 pandemic lockdown means that many have already learned these lessons. Prior research on flexible work arrangements indicates that these arrangements can be formal or informal, are generally successful and are usually available long-term to certain workers. Still, this remedy is not universal, as some employees must be at a particular workstation or desk during specific

hours to execute their work functions. Low-status and blue-collar workers are the least likely to be able to participate in flexwork as they cannot easily adjust work arrangements, sacrifice work hours, or reallocate task responsibilities. In effect, those with the fewest needs for flexwork (such as middle- and upper-class professionals) benefit the most from it. Most organisations cannot provide a flexible work option to all employees.

Most flexible work arrangements are negotiated informally between employees and management. Even when a formal policy exists and is available to employees, employees may need to be aware of its availability or believe it is usable. This may be due to a lack of knowledge, fear that using the provision may derail career aspirations, and suspicion that their work may be restricted in that they will receive less attractive assignments, thereby limiting their progression in pay and position. Much of the work on flexible workplace practises is in the work-family literature, and much can be learned from this research, but any such explication is beyond the scope of this paper. A final aspect of temporal flexibility relates to policy regarding events on days that have religious significance to some and preclude their participation. Subsidiary questions relating to events include the appropriateness of recognising religious holidays celebrated by some employees (e.g., inviting all staff to an iftar or a Christmas party) and not ensuring that the dietary requirements of all employees are catered for at events despite the added expense of doing so.

Depending on the situation, flexibility may need to expand beyond temporal flexibility (scheduling, events, and leave provisions) and extend to organisation dress codes where possible. Dress code flexibility is often vexing and involves challenging conventions about what constitutes professional attire or accessories, hair, and general appearance. Issues to consider here are flexibility about tattoos, jewellery and wearing religious symbols.

STRATEGY 2: SPACE MANAGEMENT

There are two primary space-related considerations regarding religious accommodation at work: objects in the workplace and space allocation priorities. Religious symbols in the workplace are contestable, even if these are placed in the employee's personal space. The second issue is allocating space to allow for a quiet space for prayer or meditation. For this to be meaningful, there needs to be more than a space; there needs to be some investment in making the room comfortable and agreeing on a set of principles for using the space. Such may include requesting that all electronic devices be switched off and that no this is minimised to avoid distracting others. Retaining the spiritual neutrality of space will necessitate forbidding the display of religious icons, symbols, posters, or books. Cabinets should be available for groups to store their materials. The area should always be open to all employees, but groups should be able to reserve the room for private use within the purpose of the room, such as a particular time for specific prayers. No noise or speaking restrictions should be imposed for any group using the space for private functions during their reserve period. Suppose a group of at least three employees reserve the room for up to an hour each day; this time should be separate from the scheduled prayer time of any other group. It may also be essential to provide nearby washing facilities or approximate bathrooms for those who require washing before prayer.

STRATEGY 3: COMMUNICATION AND NETWORKING OPPORTUNITIES

Three aspects of a religious accommodation communication and networking strategy bear consideration:

1. Listen: consult with employees about their religious needs, look for case examples at other organisations, identify trends, anticipate needs, and monitor complaints.
2. Communications: The diffusion of the organisation's diversity, inclusion and equality policy should include religion and be disseminated to employees. E-mail notification of religious holidays, which may consist of general facts about associated beliefs or observances, may help spread understanding and tolerance. The concern about any communication is that it may disrupt work routine, be dominated by a single religion, marginalise the representation of groups considered alternative, or be used as a platform for proselytising. Such communications will be perceived as threatening by non-religious employees, polarising for employees from other religions, and contrary to any espoused values relating to tolerance and inclusion. The compilers of any communications need to receive careful training and seek guidance from faith authorities. Communications about corporate events should not be released until the religious calendars of all employee faith commitments have been consulted. These calendars should also be made available to all managers and supervisors at the beginning of every calendar year.
3. Opportunities for intra-faith and inter-faith communications: Employee groups, often called employee resource groups or employee affinity groups, are groups open to either members of a particular faith or members of all religions and none. Such groups aim to create a forum for sharing or support, preferably in a way that is connected to the organisation. These groups may be overly complicated to manage and are best left to be led by their members. For these groups to succeed, the company culture must be characterised by respect, teamwork, and trust. The groups are potentially significant vehicles to implicitly acknowledge the whole person in the workplace, which will validate the individual employee; employees will have the opportunity to learn more about themselves and others, which will build relationships and understanding. The groups can also help create a sense of community among their members. The groups could support or facilitate recruiting efforts for the organisation, help train other employers about religious diversity, and engage with employees. They may also help develop insight into the organisational culture, anticipate future issues and help foster change. In some cases, they may even offer business input (particularly in marketing strategy) because of the cultural intelligence embedded in their members. This may help the organisation enter and expand markets, develop products, and gain access to particular communities for marketing or recruitment purposes.

A couple of cautions, however, are in order regarding these groups. A group may serve as a locus of complaints and may overreach by assuming responsibility for issues that are best left to labour relations or human resource professionals who often need to contact investigations and inquiries to establish the truth about a set of circumstances. Before launching a group, a preliminary consideration would be to consider a set of guidelines for establishing any such group. The group should have a clear purpose and agree on expectations. This will set the boundaries for the group and help members recognise the scope of attention for the group. Formal training for group members should be considered to ensure that group members understand the group's relationship to human resources.

CONCLUSION

There are good reasons to explain why companies should consider the impact of religious affiliations on their worker's experiences and engagement in the workplace. Considering these concerns can address various business-related issues ranging from productivity and marketing concerns to employee recruitment and retention. One goal is to increase employees' awareness of the whole person at work and help managers identify effective strategies that correspond to the workers' needs, making for more balanced teams and interactions. As more employees assert their right to express their religious beliefs in the workplace and utilise flexible time and space management practises for organising work, more employees will have an enhanced opportunity to enjoy more meaningful lives with their whole being expressed in all their contexts of involvement. There is certainly a business case for belief-responsive employment, but research must verify this. Still, the challenge is that we, management scientists need to recognise the limits of the business case. We need to move beyond employer self-interest to catalyse change in the short term so that long-term change and positive outcomes accruing from the long-term change can take proper effect in the organisational space. Proactive interventions to create a religiously inclusive work environment provide credibility to oft-repeated corporate claims about inclusion, help employees feel valued and safe, and allow everyone to gain a rich understanding of others' motivational profiles. That is, arguably, a valuable goal in and of itself.

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The influence of intrinsic rewards on artisan retention in the South African Automotive Industry

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ABSTRACT

The rationale of the study was grounded upon the need in a highly globalised business setting, in which organisations in the automotive industry find themselves in, to have extremely flexible and customised compensation strategies to reward and retain exceedingly skilled automotive artisans. This article explores the influence of intrinsic rewards on artisan retention in the South African Automotive Industry. A sequential exploratory mixed method approach was adopted with purposive and snowballing sampling methods used to collect data. The study findings revealed that work-life, talent development, recognition, achievement, effective performance management systems, and leadership were intrinsic rewards that impacted on artisan retention. The implication is that organisations in the South African automotive industry should tailor-make their intrinsic reward packages guided by perceptions of artisans and other important stakeholders in the industry to manage and enhance artisan retention within their institutions effectively and efficiently.

Keywords: Intrinsic rewards, Employee retention, South African Automotive industry.

INTRODUCTION

Rewarding scarce skills professionals is one of the most important Human Resources' function within modern day organisations because of the impact issues concerned with compensation management have on the performance of these respective organisations. One of the most significant factors to consider when deciding on the kind of rewards to administer to potential and current employees is deciding on which intrinsic rewards to administer to employees that will positively influence their decisions to remain in the institutions that employ them (Kaur and Sharma, 2019). To solve this critical issue of employee retention, nowadays firms are embracing innovative strategies (Ma, Mayfield and Mayfield, 2018) and one such strategy that has been used by organisations is offering total rewards that employees need (Kaur and Sharma, 2019).

Theoretical Basis of the Study and Literature Review

An overview of the grounding theories associated with the main variables of the study are highlighted in this section.

Theoretical framework of rewards: The Total rewards framework

The context of rewards in this study was grounded on the World at Work total rewards framework was chosen for discussion because of its relevance to the objectives of the present study, its wide use in rewards literature and the fact that all the reward categories are covered in this framework. The five total rewards model practices (WorldatWork, 2011) adapted from the World at Work total rewards framework which formed the basis for examining rewards administered to artisans in the South African Automotive sector consists of compensation, benefits, work life Balance/work environment, performance management and career development.

Theoretical framework of employee retention: The social exchange theory.

The investigation on employee retention in this study was premised on the social exchange theory. The major premise of the social exchange theory is that “person A’s behaviour reinforces B’s behavior and vice versa, thereby maintaining the relationship” (Gentry et al. 2007). Tzafrir et al. (2004) acknowledged that social exchange is based on the norm of exchange, namely, “we help those who help us”, thus it has been successful in establishing the managerial expectations that recognition, empowerment, investment in people assets and other favours will be reciprocated. Consequently, the social exchange theory has found wide usage in explaining employees’ intention to stay or leave an organisation (Allen and Shanock, 2013; Suutari et al. 2012). The study grounded employee retention on the social exchange theory on the premise that employees employed in various organisations will always be on the lookout for what the organisations are giving them in return to their efforts, if they would deem the rewards and benefits to be befitting of their efforts they would most likely stay with their organisations of employ.

Literature Review

The literature review conducted for this study focused on the conceptualisation of forms of rewards and in specific intrinsic rewards, which were the context of the study. Employee retention, another significant variable explored in the study is also referred to.

Intrinsic rewards

Intrinsic rewards include feelings of desire, vitality, eagerness, and self-sufficiency (Victor and Hoole, 2017). In workplace settings, intrinsic rewards originate straight from the work itself, feelings of personal, professional growth and satisfaction (Abdullah, Huang, Sarfraz and Sadiq, 2021). Kilimo, Namusonge, Makokha and Nyagechi (2017) echoes the same sentiment that intrinsic rewards exist in the job itself and comprise trial, variability, accountability, accomplishment, autonomy, and growth both personally and professionally.

Employee retention defined

The biggest challenges faced by organisations is employee retention (Kim, Milliman and Lucas, 2020), therefore the need to research and provide management of these institutions with solutions with on factors and issues impacting employee retention within the automotive industry. Employee retention has been defined variedly in the literature (Kundu and Lata, 2017). Employee retention is a deliberate process by any institute to provide an environment that inspires and motivates employees to continue with the entity for the maximum period and is advantageous for both the institution as well as the employee (Fahim, 2018). It can also be

referred to as a combination of practices and of various policies that make it beneficial for the employees remain loyal to an organisation for the foreseeable future (Singh, 2019). The organisation's ability to maintain a proficient and constant workforce can also be defined as retention (Narayanan, Rajithakumar and Menon, 2019).

Research Objectives and Questions

The rationale of the study is also grounded in the need to have very reliable and tailored remuneration tactics to reward exceptionally skilled employees in a highly globalised setting in which organisations in the automotive industry find themselves, this is also coupled with the challenges in the automotive industry, which include individualisation, digitalisation, and increasing competition. In light of the need for sustainability in the industry, and to keep it a thriving industry, there is a need for organisations to investigate and identify intrinsic reward practices that will enhance employee retention to assist firms in the automotive industry to succeed in achieving their objectives and goals.

To summarise, the study aimed to answer the two research questions presented in Table 1.

Table 1: Research questions

RQ number	Research question
RQ1	Is there a significant relationship between intrinsic rewards and retention of scarce skilled artisans in the South African Automotive Industry?
RQ2	Which intrinsic rewards would enhance the retention of scarce skilled artisans in the South African Automotive Industry?

Note: RQ = Research question

RESEARCH DESIGN

Research approach

An exploratory sequential mixed method approach was used for the study, coupled with both quantitative and qualitative research approaches.

Research Population and sampling

The sampling frame of all organisations that were part of the study was obtained from the Retail Motor Industry Organisation (RMI) for the purposes of data collection. The RMI is a grouping of major stakeholders, member associations, and several major organisations with vested interests in the automotive industry of South Africa (RMI, 2020).

In the **qualitative phase**, a semi-structured interview process with human resource practitioners, remuneration managers, artisans, and labour union representatives identified through snowball sampling (until data saturation had been reached), was used to collect the primary data. The inclusion criteria used for the interviews was as follows; 3 years+ working experience in the automotive sector, knowledge of remuneration trends and information in the automotive sector, and a minimum qualification in any trade related to the sector.

For the **quantitative phase**, the population were artisans employed in organisations in the automotive industry. The inclusion criteria for the participants that were sampled included the following; 3 years+ working experience in the automotive sector, knowledge of remuneration trends and information in the automotive sector, and a minimum qualification in any trade related to the sector.

MEASURING INSTRUMENTS

Total Rewards Model

The total rewards model was used as a measure for reward preferences. Makhuzeni and Barkhuizen (2015) confirmed the trustworthiness of the Total Rewards Model with reference to Lincoln and Guba's (1985) constructs of credibility, transferability, dependability and conformability. The dimensions of the Total Rewards model had moderate Cronbach's alpha values that ranged from 0.51 to 0.71, while the reliability and validity of this scale was confirmed through item analysis of constructs of each subscale with the following Cronbach alphas; compensation - .91, benefits - .917, work life balance - .843, performance management and recognition - .910, and talent development - .917 (Pregnotato, 2010).

Employee retention scale

The employee retention scale (Jackson, Turner & Brief, 1987; Mitchel, 1981) was used to investigate employee decisions regarding their intentions to stay within their organisations of employ.

The employee retention scale comprises one construct, namely, intention to quit.

- **Intention to quit** - The intention to quit subscale has five items. The reliability coefficient for the items, when used by Njoroge (2007) and Wang (2012), were confirmed as 0.902, which gives good level of support to the items (Umamaheswari and Krishnan, 2016). In two separate studies, the Cronbach's alphas of the scale were 0.82 for perceived job alternatives, while the Cronbach's alphas of the intention for search scale were 0.89 and 0.90 respectively (Paille, 2013). All scales and subscales are at accepted levels (Cooper and Schindler, 2011).

Several studies investigating employee retention have validated the employee retention scale (Lichtenstein et al., 2004; McCarthy and Wells, 2004; Mitchel, 1981; Njoroge, 2007; Wang, 2012). This study also confirmed the reliability of the employee retention scale through item analysis with an alpha score of .868.

Data Collection

In the **qualitative phase**, the data collected was done through interviews with human resource practitioners, remuneration managers, and artisans via SKYPE or face-to-face encounters. The researcher compiled questions beforehand that ensured that the same basic line of questioning was followed with each respondent. This allowed the researcher to explore questions that serve to illuminate the investigation, but at the same time ensure that the interactions with the participants were focused. The interviews conducted yielded direct quotations from the participants about their experiences, views, feelings, and understanding (Sapsford and Jupp, 2006).

In the second **quantitative phase**, a structured questionnaire was hand-delivered and collected thereafter at a convenient time. Monkey surveys were also used to distribute the structured questionnaire to artisans for convenience, and to improve on the response rate. A structured questionnaire was developed for the quantitative phase using principles of the WorldatWork Total Rewards Model (WorldatWork, 2011) and the employee retention scale adapted from various validated scales (Lichtenstein et al., 2004; Peters, Jackofsky and Salter, 1981; Njoroge, 2007, Wang, 2012; Mitchel, 1981) to determine which reward practices participants considered most important in deciding whether to stay or to leave their respective organisations.

Data Analysis Process

Qualitative phase: For a more comprehensive grasp of the qualitative findings, the interview transcripts were subjected to Thematic Content Analysis (TCA) using ATLAS.ti. Thematic Content Analysis (TCA) is a descriptive presentation of qualitative data and reflects the perceptions of participants on the topic under study. TCA portrays the thematic content of interview transcripts by identifying common themes in the transcripts provided for analysis.

Quantitative phase: The Statistical Package for the Social Sciences (SPSS) Version 26 was used to analyse data in the quantitative phase. Descriptive statistics (frequencies and means) and inferential statistics (Cronbach's alpha, exploratory factor analysis, Pearson's correlation coefficient, multiple regression analysis, T-tests, and ANOVAs) were utilised in the study.

Trustworthiness, Validity and Reliability

Qualitative phase: The trustworthiness concept was applied to determine the quality and value of the qualitative phase. To enhance the concept, the researcher referred to the criteria formulated by Lincoln and Guba (1985), who proposed the 'constructs of credibility, transferability, dependability, and conformability'.

Quantitative phase: Face validity and content validity were used to examine the validity of this study. Content validity refers to how well a test is relevant to, and representative of what it was intended for. Cronbach's alpha was used as the reliability coefficient to estimate the consistency of the indicators. A Cronbach's alpha of 0.70 was considered significant, the exploratory factor analysis of the subsequent variables in the study is covered in the quantitative phase of data presentation.

Ethical Considerations

The researcher adhered to the ethical guidelines expected from a researcher. Part of the ethical issues that the researcher adhered to included protection from injury, informed permission, respect of anonymity, and honesty with qualified associates (Watkins, 2006). Before both phases of data collection (qualitative and quantitative), ethical clearance certificates were applied for consideration by the Faculty of Management Sciences Research Ethics Committee (FCRE-ECO), the ethical certificate reference number is FCRE2017/FR/12/001.

FINDINGS AND DISCUSSION

The qualitative and quantitative research findings are presented under relevant key headings.

Qualitative results

Intrinsic reward forms that retain artisans in the South African automotive industry

MAPPING OF THEMES

The following section maps out the themes fulfilled from the data and content analysis of the qualitative phase;

Intrinsic reward forms that influence employees to remain employed/make decisions to remain as employees of respective organisations within the Automotive industry are depicted in Table 2.

Table 2: Intrinsic rewards that impact on employee(artisan) retention in the South African automotive industry. Themes and verbatim

Participants	Verbatim quotes	Coding
P1	"I am almost entirely happy with the reward forms within my organisation that is why most artisans within have remained loyal to the organisation, however I feel more be done to improve <i>flexibility of work schedules</i> , this is a big frustration especially to artisans that have just started up their careers and some in their mid-careers."	Work life/work environment (flexible work schedules).
P2	"In my organisation there is no support for artisans that want to pursue their studies or <i>improve their qualifications</i> , support could be in form of payment of tuition fees. The and retention of artisans would be much better if my organisations availed such opportunities."	Talent development (personal and professional growth).
P3	" <i>Recognising</i> artisans for a job well done could go a long way in influencing artisans to stay within organisations, the organisation can reward employees for tasks well done through managers' <i>recognition awards</i> and outstanding performance."	Recognition.
P4	"Some artisans that are more serious about <i>achievement</i> and performing to their best in their job tasks and activities would appreciate the organisation having in place <i>proper performance monitoring and evaluation systems</i> that would also appeal to artisans that prefer performance-based incentives. If effective and efficient <i>performance systems</i> are not in place these employees could find themselves finding solace in rival companies that will manage their performance and performance-based rewards better."	Achievement, Performance management process.
P5	"Many artisans are looking for <i>growth</i> in this fast paced and competitive industry thus organisations should consider <i>empowering them</i> if they want them to remain within their organisation. Most of the artisans are happy within the organisation because we offer them <i>opportunities for growth</i> and because we are a global corporate we even send them on frequent exchange programs at our HQ in Europe so that they develop their skills."	Talent development (personal and professional growth).
P6	"The <i>work schedules</i> of artisans could be interrogated within my organisation if they are planning to keep them for long., they could consider <i>flex-time</i> especially for younger employees who are busy with their lives that are characterised by schooling, family commitments and responsibilities. However telecommuting schedules would prove difficult to administer as most of the work is workshop characterised, most employees would need to come in the workshop to do their job tasks and activities."	Work life/ work environment (Workplace flexibility).
P7	"Most employees would want to work in an environment where their superiors relate to them well, lead them fairly and effectively. The way managers and <i>leaders lead</i> and manage greatly influence employee retention, if they are not happy with how a certain leader leads or manage they may leave the organisation."	Work life/ work environment (leadership).

P8	"Some artisans especially those that are in their early careers would be attracted to an environment that allows their growth and development , most of these artisans would be new in employ and would be looking forward to being mentored and developed by their superiors and experienced peers."	Talent development (personal growth and development).
P9	"I am almost entirely happy with the reward forms within my organisation that is why most artisans within have remained loyal to the organisation, however I feel more be done to improve flexibility of work schedules , this is a big frustration especially to artisans that have just started up their careers and some in their mid-careers."	Work life/work environment (workplace flexibility).
P10	"With regard to staying in an organisation my brother, happiness and a good state of mind is all that matters, ..."	Stress-free, Self-esteem.
P11	"I think if the organisation can show concern in improving the qualifications of their employees then they can be encouraged to stay within the organisation, the organisation should consider funding artisans programs or qualifications to improve their qualification."	Talent development (personal and professional growth).
P12	"Artisans also want to feel valued and important to remain within their organisations, the management could consider platforms to allow the employees to share their views and opinions with regards to the operations of the organisation and the way they are managed."	Recognition.
P13	"My organisation could attract and retain a lot of artisans if they could improve on their developmental and career opportunities , they offer employees. There are no clear career paths in the organisation for employees and coaching and mentoring is non effective and efficient to satisfy and develop employees thus many employees leave for other organisations within the industry that offer better development and career opportunities."	Talent development (personal and professional growth).
P14	"What could be more appealing for artisans to stay within my organisation would be the employees being given enough recognition in their job tasks and activities. If employees are going to feel appreciated through effective and efficient performance reviews and different awards monetary and monetary to reward their efforts, they will definitely stay in the organisations in which they are employed in."	Recognition.
P15	"Organisations should consider availing benefits to employees that enable them to manage their work schedules , this would be greatly appreciated especially by employees in their early careers and make them want to remain within the organisation for example vacations and sabbaticals could be given to those that want to study and attend to their personal issues ."	Work life/ work environment (flexible work arrangements).
P16	"Employees need to feel valued and important within their organisations to remain loyal to them and this could be done through different ways in which employees are recognised by awards, benefits or even monetary reward forms."	Recognition.
P17	"In my organisation artisans do not feel recognised or valued at all with regards to the various job tasks and activities that they do, the management takes them for granted and there is absolutely no recognition for efforts that the artisans put through. The organisation can consider awarding employees' performance-based bonuses, awards that could include managerial and peer-based awards to appreciate good performance."	Recognition.

P18	<i>"My organisation does not offer opportunities for time out to attend to personal and family responsibilities and this is frustrating for the artisans, the organisation should consider interventions of workplace flexibility like compressed workweeks and job sharing."</i>	<i>Work life/ work environment (workplace flexibility).</i>
P19	<i>"Employees would appreciate the forms of rewards that they get to be linked to their performance; employee retention would be higher in organisations within the industry if the companies would transfer the money, they are making into employee rewards and reward them according to their performance."</i>	<i>Performance management systems.</i>

It is clear from Table 1 that rewards talent development (personal and professional growth), recognition, achievement, effective and performance management processes, self-esteem and work life environment (workplace flexibility, leadership) are the intrinsic rewards that impact on employee retention.

The intrinsic rewards impacting on employee retention as gathered and analysed in the qualitative phase are summarised in figure 1 below.

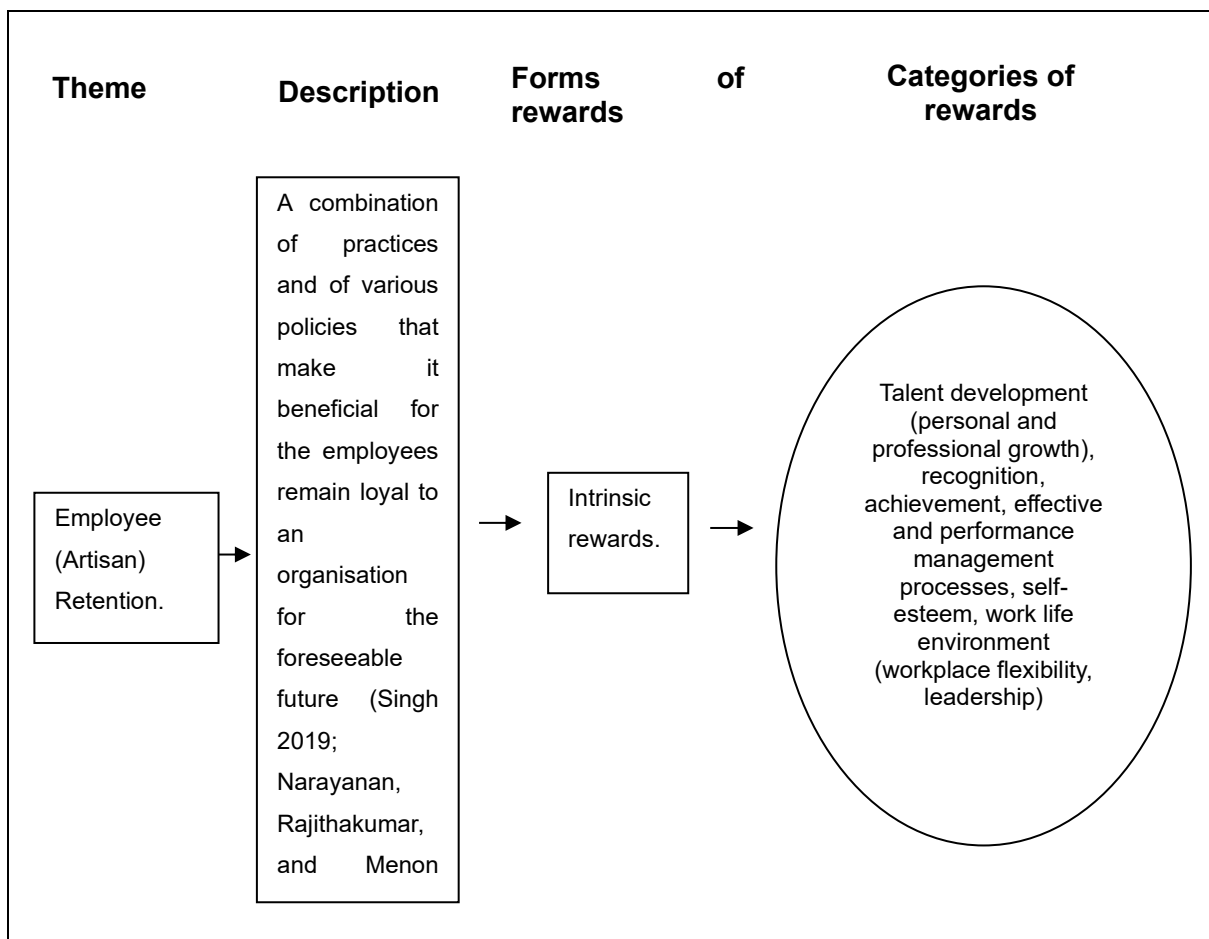


Figure 1: The intrinsic rewards impacting on employee retention. (Own compilation from the qualitative phase data).

Quantitative results

Results Arising from the Demographic Profiling of the Sample

The quantitative results arising from the demographic profiling of the sample are summarised in Table 3 below;

TABLE 3: Sample description

Variable	Category	Frequency	Percentage (%)
Age	18-30 years	78	31.2
	31-40 years	135	54
	41-50 years	35	14
	51 years and above	2	.8
Employment status	Permanent contracts	142	69.6
	Fixed term contracts	15	7.4
	Other	26	12.7
Highest educational qualification	N6 diploma	80	32
	Diploma	91	36.4
	Bachelors	54	21.6
	Honours	11	4.4
	Masters	8	3.2
	Other	6	2.4
Length of service	Less than 1 year	35	14
	1-5 years	134	53.6
	6-10 years	64	25.6
	11-20 years	16	6.4
	21 to 30 years	1	.4
Gender	Female	101	40.4
	Male	149	59.6

Results Arising from Exploratory Analysis

Exploratory factor analysis of the Total Reward scale.

Exploratory factor analysis was conducted on the Total Reward subscales related to intrinsic rewards that impact on employee retention. The results are outlined in the following section.

Recognition subscale

The recognition subscale obtained a satisfactory Kaiser Meyer Olkin measure of sampling adequacy value of .81. The Barlett's Test of Sphericity statistic value was 2736.582 (df = 55,

$p = 0.000$) and this showed that factor analysis could be carried out. Only one factor was extracted and it accounted for 49.9% of variance. However, item D36 could not load into the factor due to a poor factor loading. Therefore 11 items were retained for further analysis. See Table 4.

TABLE 4: Factor matrix of the Recognition subscale

	Factor
D11	.680
D12	.593
D13	.597
D34	.595
D35	.580
D38	.736
D39	.778
D40	.830
D41	.780
D42	.782
D43	.760

Performance management subscale

The performance management subscale obtained a satisfactory Kaiser Meyer Olkin measure of sampling adequacy value of .60. The Barlett's Test of Sphericity statistic value was 449.230 ($df = 3$, $p = 0.000$), and this showed that factor analysis could be carried out. Only one factor was extracted, and it accounted for 75.8% of variance. See table 5.

TABLE 5: Factor matrix of the performance management subscale

	Factor
D32	.912
D33	.947
D37	.740

Work life subscale

The work life subscale got a Kaiser Meyer Olkin measure of sampling adequacy value of 0.75, and a Barlett's Test of Sphericity test statistic value of 855.393 ($df = 10$, $p = 0.000$). All the items loaded on a single factor, and they accounted for 54.34% of variance. All the items in the work life subscale were retained for further analysis because they all had good factor loading values above 0.55. See Table 6.

TABLE 6: Factor matrix of the work life subscale

	Factor
D26	.766
D27	.843
D28	.857
D29	.766
D30	.716
D31	.561

Talent development (development and career opportunities subscale)

Principal component analysis was carried on the professional development subscale. Firstly, it was assessed to check the factorability of the subscale and it obtained a good Kaiser Mayer-Olkin measure of sampling adequacy value of 0.85; greater than the recommended value of 0.6 (Pallant 2016). To add, the subscale's Bartlett's test of sphericity test value was also significant 2085.069 (df = 36, p = 0.000). These results supported that the professional development subscale was suitable for exploratory factor analysis.

Initially, three factors with Eigen values above 1 were extracted, explaining approximately 54.57%, 15.03%, 9.33% and 11.33% of variance respectively. However, the second and third factor had three and two items in each of them. Pallant (2016) recommends that factors to be retained for further analysis should contain more than three items. Based on this theoretical knowledge, it was decided to retain one solution. A second round of EFA was carried out, and three items (D44, D45 and D46) could not load into the single factor; hence they were excluded from further analysis. The new one factor solution explained approximately 61.65% of variance and contained 8 items. See Table 7.

TABLE 7: Factor matrix of the talent development (development and career opportunities) subscale

	Factor
D47	.794
D48	.852
D49	.874
D50	.824
D51	.844
D52	.701
D53	.712
D54	.666

Exploratory factor analysis of employee retention scale

Principal component analysis was performed on the employee retention scale. The subscale obtained a Kaiser Meyer-Olkin measure of sampling adequacy value of 0.73, and the Bartlett's test of sphericity test value was significant 758.016 (df = 10, p = 0.000). This showed that factor analysis could be carried out. One factor was produced and it explained 66.24% of variance. All five items in the scale were retained for further analysis. They had acceptable factor loadings ranging from 0.685 to 0.898. See Table 8.

TABLE 8: Factor matrix of the employee retention scale

	Factor
RC1	.854
C2	.859
RC3	.898
C4	.685
RC5	.754

Results Arising from the Multiple Regression Analysis

Intrinsic rewards predicting employee retention.

Multiple regression analysis was also employed to check if the intrinsic rewards, recognition, work life, work environment, performance management, and talent development predicted the retention of the scarce skilled artisans in South Africa's Automotive industry. As shown in Table 9, the regression model was significant, explaining 14.3% of variance ($R^2 = .143$, $F(3, 245) = 10.224$, $p < .01$). In this model, talent development was found to be the most significant predictor of retention ($\beta = .313$, $t(245) = 5.119$, $p < .001$), followed by recognition ($\beta = -.273$, $t(245) = -.2734$, $p < .05$). Drawing from these findings the intrinsic rewards forms of recognition and talent development opportunities enhance the retention of scarce skilled artisans in the South African automotive industry.

TABLE 9: Intrinsic rewards and Employee retention

Predictor	β	T	P	R^2	F	df	P
Overall model	.			.143	10.224	4.245	0.00
Recognition	-.273	-.2734	.007				
Work life	.119	1.790	.075				
Talent development	.313	5.119	.000				
Performance management	.205	1.925	.055				

Note. Employee retention was the dependent variable

T-TESTS AND ANOVAS

Length of service and employee retention

One-way analysis of variance (ANOVA) was also calculated on the participants' length of service and artisan retention. The analysis was significant, $F(3, 246) = 3.937$, $p = .009$. The Turkey HSD test further revealed that participants who had served between 1 to 5 years in their organisations indicated a significantly higher retention rate ($M = 14.40$, $SD = 4.385$) than those with less than 1 year in the organisation ($M = 11.57$, $SD = 4.59$; $p = .004$). However, the level of retention for participants with 1 to 5 years of service was not statistically different from those with 6 to 10 years of service ($p = .118$), and those with 11 to 20 years of service ($p = .299$). There was also no statistical difference in the retention scores for participants with 1 to 5 years compared with those with 6 to 10 years, and those with 11 to 20 years ($p = .634$; $p = .956$) respectively.

TABLE 10: ANOVA for length of service on employee retention

Variable	Length of service	N	Mean (M)	SD	df	F	P
Total Rewards	Less than 1 year	35	11.5714	4.59082	3.246	3.397	.009
	1-5 years	134	14.3955	3.85063			
	6-10 years	64	13.6094	4.55170			
	11-20 years	17	13.8235	6.40542			

* $< .05$, *** $p < .001$

In this study age and gender were found not to significantly impact on artisan retention within the South African automotive industry.

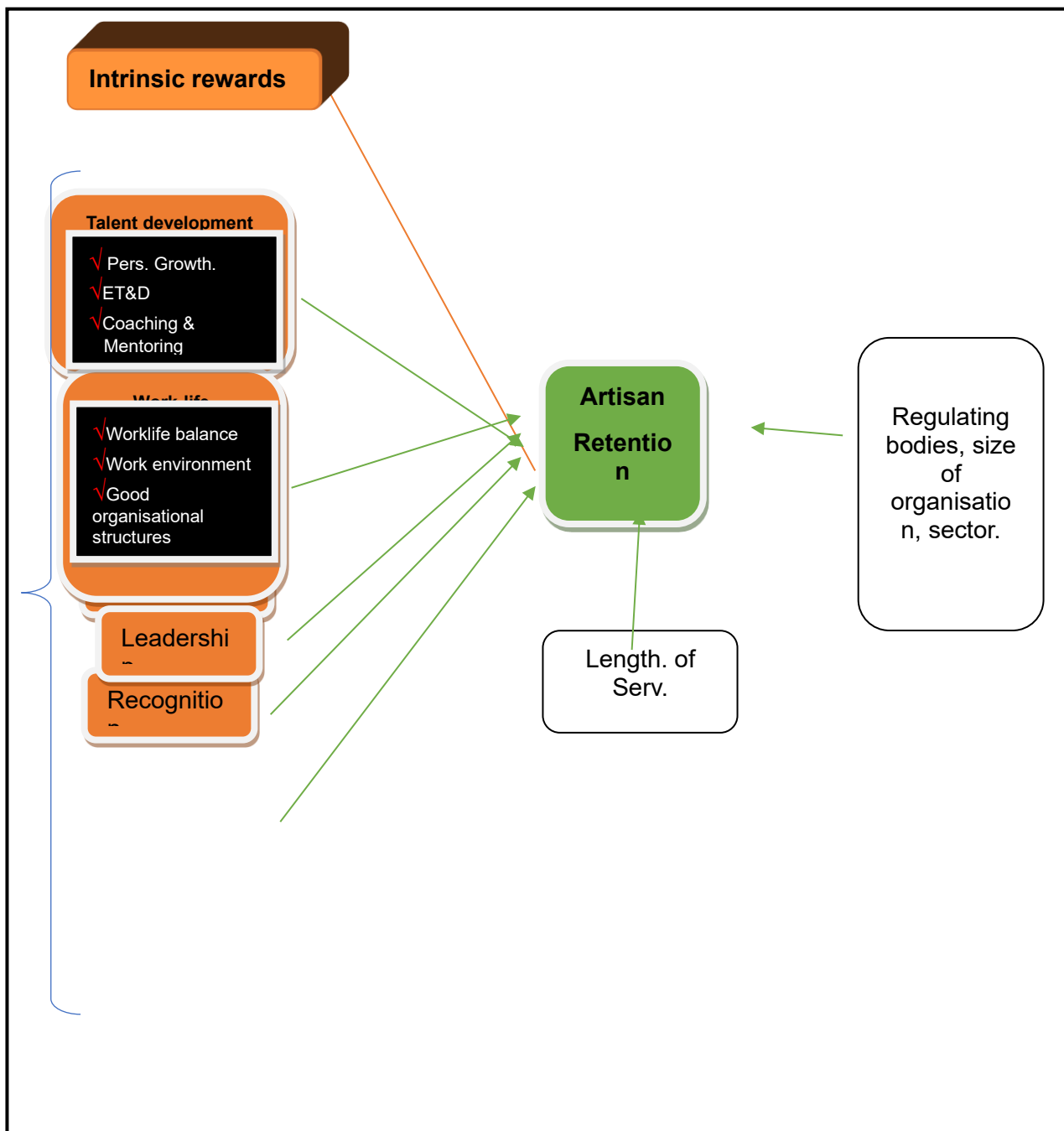
Discussion

The purpose of the research study was to develop an integrated intrinsic rewards framework that will enhance the retention of scarce skilled artisans in the South African automotive industry. The final stage of the investigation required that the findings of the qualitative and quantitative phase of the study be integrated to have one framework that will inform about the intrinsic rewards that will be significant in the retention of artisans in the South African automotive industry.

The development of an integrated intrinsic rewards framework to retain artisans in the South African Automotive industry was also motivated by Ma, Mayfield and Mayfield (2018) assertion that organisations need various specific rewards strategies to retain artisans within their structures. Additionally, Kilimo et al. (2017) outline that it is important for organisations to adapt reward systems that will focus on employee preferences if they strive to retain skilled and high performing employees'. Arasanmi and Krishna (2019) also recommend that organisations should integrate reward programmes that will position them to retain high quality employees, however Khan et al. (2017) cautions that regarding the administration of rewards, there can never be a one blanket size fits all, therefore various reward factors and issues should be looked at as organisations adapt traditional reward systems to develop effective reward strategies for their employees.

Regarding artisan retention in the South automotive industry, the study findings revealed that work life, talent development, recognition, achievement, effective performance management systems, leadership were intrinsic rewards that impacted on artisan retention. The study findings also informed that employee length of service also significantly affects artisan retention respectively, while other issues i.e (impact regulating bodies/institutions in the industry, size of the organisation, type of industry in the industry) also impacted immensely on the administration of rewards and management of artisan retention.

The results from the study developed an intrinsic rewards framework (Figure 2 shown below) to enhance retention of scarce skilled artisans within the South African Automotive industry.



collected at a single point. Balogun (2010) warns on the dangers of collecting data at a single point in time, as it aggravates same-source or common method biases and does not consider maturational effects. Following on this, a longitudinal design is recommended for future studies as this could reduce this potential influence.

Bussin and Toerien (2015) also caution that “the nature of reward preferences means that studies that ask respondents to rate their preferences are likely to be plagued by low variance and positive skewedness towards higher ratings, especially as all individuals consider all rewards important to some extent”. A recommendation in this regard would be to address this shortcoming by devising a more appropriate measuring instrument, perhaps asking respondents to score reward components out of 10, by enlarging the rating scale to 7 or 10 points, and modifying the interval descriptions, or by forcing pair-wise trade-off questions, which might be more complicated, but would perhaps yield a more accurate real ranking of reward preferences (Bussin and Torien, 2015).

Another limitation was that other demographical characteristics for example race was not investigated in the study with regards to its association with rewards preferences and effect on employee retention. Following on this, the researcher recommends that future studies of this nature should take cognisance of such.

The study did not include cultural and personality influences in the study, therefore future studies of the same context should consider including these variables when determining rewards that would enhance artisan retention in the South African Automotive industry. Reflecting on these contrasting views, it would be beneficial to investigate how reward preferences differ across cultures which would be key in managing multinational reward systems in contemporary organisations.

CONCLUSION

The purpose of the research study was to develop an integrated rewards framework that will enhance the retention of scarce skilled artisans in the South African automotive industry. This study revealed that there is a significant correlation between intrinsic rewards and artisan retention in the South African automotive industry. Regarding artisan retention in the South African Automotive industry, the study findings revealed that work life, talent development, recognition, achievement, effective performance management systems, leadership were intrinsic rewards that impacted on artisan retention in the industry. The study findings also informed that employee length of service also significantly affects artisan retention respectively, while other issues i.e regulating bodies/institutions in the industry, size of the organisation, and type of sector in the industry also impacted immensely on the administration of rewards and management of artisan retention within the South African automotive industry.

The effect of intrinsic rewards forms on artisan retention in the South African automotive industry is immense, the implication is that organisations in the South African automotive industry should tailor make their intrinsic reward packages informed by perceptions of artisans and important stakeholders in the industry to manage and enhance artisan retention effectively and efficiently.

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Exploring the Application of Talent Return on Investment at a Selected South African Waterboard Organisation

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ABSTRACT

Talent management costs are the largest variable budget expense or investment for many organisations in South Africa's water and energy sectors. However, talent management functionaries neglect to calculate the return on investment (ROI) of talent management initiatives that are put in place. The primary objective of this study was to explore how talent return on investment methodologies are applied in a particular Waterboard organisation in South Africa. Semi-structured interviews with a predetermined sample of participants (N=6) were utilised to collect data as part of a qualitative case study research strategy. The findings revealed that the organisation currently does not use talent ROI, metrics, or analytics. The few talent measurements used are simple and conventional and are not useful for strategic decision-making. Applying relevant talent metrics, analytics, and talent ROI can help HR measure the results of talent management activities and support existing and upcoming investments.

Keywords: Talent analytics, Talent management, Talent metrics, Talent return on investment, Waterboards

INTRODUCTION

Human capital management, also known as talent management, is one of the intersecting points between strategy implementation and the achievement of goals in organisations (Bose, 2015). Talent or people expenses are often the largest variable budget expense. According to Karthikeyan (2016:179), talent management costs account for between 35% and 60% of all variable costs in organisations all over the world. However, Ergle, Ludviga, and Kalvina (2017) assert that because the human resources (HR) function in most organisations still significantly relies on gut instinct, investments in talent management efforts cannot be supported and the talent ROI cannot be calculated. Either there is a dearth of reliable data (Ergle et al., 2017:1), or HR has access to the largest collection of underutilised data in the organisation (Gupta & Shaikh, 2018:79), which explains the difficulty to justify HR costs and quantify talent ROI.

The use of HR metrics and analytics offers significant potential for improving the quality of decision-making in talent management and other general HR issues facing businesses (Mohammed, 2019:56). Additionally, executive management of organisations will be more willing to invest more of their time, effort, and resources in these initiatives if HR functionaries

can create a way to assess the return on investment of talent management initiatives like talent recruitment, development, and retention (Van Niekerk, 2016).

A report by Human the Human Capital Institute and Hewitt Associates report states that few organisations have pursued talent metrics that matter, that is less than ten per cent (10%) of responding organisations calculate the effectiveness of talent management programs, track the excellence of talent, or use precise quantitative frameworks to bring into line human capital reserves with their business strategy (Hejase, Hejase, Mikdashi, & Bazeih, 2016). According to Meri (2015), business leaders and HR executives do not treat their talent management decisions with the same level of importance as they do other business decisions due to a lack of knowledge. Consequently many organisations fail to apply talent ROI, let alone implement various talent metrics and analytics as crucial administrative tools.

The main objective of this research is to explore the application of talent return on investment methodologies in a selected Waterboard organisation in South Africa. More specifically this research aims to answer the following questions:

- How is talent return on investment conceptualised in the selected waterboard organisation?
- What is the rationale for applying talent return on investment methodologies in the selected waterboard organisation?
- What is the current application of talent return on investment methodologies in the selected waterboard organisation?
- What is the strategic importance of return-on-investment methodologies for the selected waterboard organisation?

This research is motivated by the fact that the Annual Reports of the selected Waterboard organisation showed a significant decline in reported water sales, with a concurrent escalation of municipal debts. In addition, there has been an increase in HR costs and irregular expenditure. The Human Resources department at the Water Board organisation oversees talent management, which serves as the driving force behind this study. The organisation devotes a significant amount of time, money, and effort to talent management projects and procedures. With the help of these initiatives, the organisation hopes to be able to attract the "right talent" at the "right time" who can help it accomplish its strategic goals of sustainability and competitiveness. To assess the impact of talent management, however, there are no instruments, such as metrics and analytics. As a result, it can be challenging to explain the success and efficiency of initiatives adopted and their impact on the business's bottom line, as well as to justify the costs associated with them.

LITERATURE REVIEW

Talent Management

From the literature review, it is evident that a shared definition and common understanding of talent management is lacking. For this paper, the researchers selected the talent management definitions mostly relevant. According to Lewis and Hackman (2006), talent management is defined in three ways, firstly, as a combination of standard human resource management practices and functions such as recruitment, selection and career development; secondly, as the creation of a large talent pool, ensuring the quantitative and qualitative flow of employees through the organization; and thirdly, as a good based on the demographic necessity to manage talent. Arif and Thakkar (2015) maintain that talent management is all about activities that are aimed at identifying key positions in an organization, developing a talent pool of high-

potential candidates, recruiting competent incumbents into these positions, and retaining the talent to help businesses and individuals play their best long-term advantages. Kontoghiorges and Frangou (2009), define talent management as the implementation of integrated human resource strategies to attract, develop, retain and productively utilise employees with the required skills and abilities to meet current and future business needs. Sareen and Mishra (2016) view talent management as one of the important drivers for organisational success and growth. All combined, talent management appears to be an integration of efforts to attract, develop, and retain the best people; and for some, it means efforts designed to integrate all components of an organisation's human resources system to attract, select, develop, appraise, reward, and retain the best people (Srivastava & Sharma, 2017)

Defining talent return in investment, metrics and analytics

Workforce analytics is a critical tool to shape future business strategy and is increasingly used as a key future trend for all types of businesses (SHRM Foundation, 2016). Talent metrics, analytics and ROI somehow get interchanged or taken with different connotations even though there are subtle differences in their utility and contribution to the HR concept of workforce dynamics (Karthikeyan, 2016). Kaur and Fink (2017) assert that talent analytics consists of an array of tools and technologies, ranging from simple reporting of HR metrics to predictive modelling. Marler and Boudreau (2017) comprehensively define talent analytics as an HR practice which is enabled by information technology which uses descriptive, visual and statistical analyses of data related to HR processes, human capital, organisational performance, and external economic benchmarks to establish business impact and enable data-driven decision-making. Kavanagh and Johnson (2018) view ROI as a capital budgeting metric in which the flow of benefits that result from an investment is compared with the cost incurred in making such an investment, usually in the form of a ratio, using the cost of the investment as a denominator. In a more concise manner, Sullivan and Becker (cited by Rauf, Gulzar & Baig, 2016) perceive talent ROI as simply a workforce productivity metric which in essence compares corporate profits to the HR combined costs and total labour costs; a measure to evaluate the role of how investments in HR lead to success and how people make contributions towards organizational success; and a determinant of organizational profitability and the link between HR metrics and organizational ROI. Similarly, Karthikeyan (2016) contends that most strategic HR metrics focus on productivity, recruiting, retention and employee relations.

The business case for the measurement of talent management components.

According to Kumar (2016) nearly everything in HR can be measured but it is smarter to focus on the few items that have the biggest cost and the most impact and thereby prove to decision-makers in the organisation that HRM is operating efficiently, effectively and contributing immensely to the bottom-line. Turner and Kalman (2014) contend that at the strategic level measures such as return on investment in talent or return on human capital employed are key in measuring the impact of HR on the performance of the business and achievement of its goals of competitiveness and survival. Some of the early papers on talent return on investment (see Yapp, 2009) reveals that organisations should invest in talent management practices for four reasons namely, to address a shortage of talent; respond to competition for talent; to secure a long-term leadership pipeline; and to drive business transformation. Fitz-enz (2010) suggests that there is also a need to measure and evaluate the results of investment in talent management, and the cost-benefit ratio and ROI metrics will continue to be critical measures of the economic feasibility and success of talent management programs and initiatives. According to the CIPS's RAM approach (see NHS Leadership Academy, 2014), a mixture of evaluation methods such as measures of expected change/improvement; return on

expectation; return on investment (ROI) should be applied to ensure continuous investment in talent management. Armstrong and Taylor (2014) argue that talent analytics uses metrics to provide the basis for assessing the impact of talent management practices as well as the contribution made by talent to organisational performance.

RESEARCH METHODOLOGY

Research design and procedure

A qualitative research approach was used as a systematic scientific inquiry to build a holistic, largely narrative description to inform the researcher's understanding of a social or cultural phenomenon (Astalin, 2013). This study adopts an interpretive approach which is often accompanied by the closely related goal of seeking to probe beneath surface appearances (Bryman & Bell, 2014). The researcher obtained permission from the Chief Executive of the selected Waterboard organisation to interview the participants or interviewees selected for the study. The participants were informed of the nature and purpose of the study, their rights as participants and their freedom to withdraw at any time. All participants signed an informed consent letter. Ethical clearance was obtained by the researchers prior to the commencement of the study. All ethical protocols were adhered to such as confidentiality and ensuring the quality and rigour of the research.

Sampling

The target population for this study was participants who represented the population of cross-functional role players that have a role in the processes under study (N=6) at the selected waterboard. A purposive convenience sampling technique was used as the Waterboard was considered to be the case in the study. Spradley (cited by Etikan, Musa & Alkassim, 2016:2) suggest that the selected participants are not only proficient and well-informed about the phenomenon of interest but they were also available, willing to participate and had the ability to communicate experiences and opinions in an articulate, expressive and reflective manner. A sample size of six (6) was selected because according to Gentles, Charles, Ploeg and McKibbin (2015) smaller samples are used in qualitative research the reason being that the general aim of it (sampling) in qualitative research is to acquire relevant data that is useful for understanding the complexity, depth, variation or context surrounding a phenomenon rather than to represent a population as it is the case with quantitative research. Furthermore, with the sample size of six (6) data saturation was taken care of as this is according to Gentles *et al.* (2015) a point of informational redundancy where additional data collection contributes little or nothing new to the study. The demographic profiles of the participants are presented in Table 1 below.

TABLE 1: Profiles of the interviewees and pseudonyms.

Participants' pseudonyms	Gender	Age group	Highest Qualification	Managerial experience	Function type
P1*	Male	37 - 42	B.Tech.	10	Support (Admin)
P2*	Male	43 - 48	M.Sc.	13	Core (line)
P3*	Female	31 - 36	MBL	6	Support (Admin)

P4*	Female	43 - 48	LLB	7	Support (Admin)
P5*	Male	43 - 48	B.A Hons	11	Core (line)
P6*	Male	55 - 60	B.Sc. Eng.	29	Core (line)

Data collection and analyses

The researchers applied semi-structured interviews to collect the data. This approach was deemed suitable as research participants are required to answer interview questions freely and where the interviewer could use further probing and exploring questions (Bryan & Bell, 2014). The data were recorded with the permission of the participants (Leedy & Ormrod, 2010:159) and stored in a safe. The transcribed recordings were returned to the participants to verify the accuracy of their content.

According to Creswell and Creswell (2018:190) “the general intent of various forms of qualitative data analysis is to make sense of the text and image data . . . it involves segmenting and taking apart the data (like peeling back the layers of an onion) as well as putting it back together again”. Since the research is a case study, it followed the model consisting of three (3) elements i.e. noticing, collecting and reflecting (Maree, 2016). At the end of the data collection process, the researcher used thematic analysis, with data analysed by themes, in a highly inductive manner where themes emerge from data and are not imposed by the researcher (Dawson, 2009). The data is presented according to themes and supported by direct quotes from the participants.

FINDINGS

Theme 1: Importance of talent and talent management

The researchers started the interview by probing the participants on the importance of talent and talent management. The participants were largely unanimous in stating that talent and talent management are key to the implementation of organisational strategy. Other observations by the participants also emphasised the importance of talent skills and competencies. The emerging sub-themes are presented in Table 2 below:

TABLE 2: Importance of talent and talent management

EMERGING THEMES	PARTICIPANTS					
	P1	P2	P3	P4	P5	P6
Importance of talent and talent management						
Strategic Goal Achievement	x	x	x	x	x	x
Skilled and competent employees	x	x	x	x		x
Enhancement of technologies			x		x	x
Talent investment and development	x	x		x		
Talent Retention	x	x				

Some supporting quotes from the participants include

“The most crucial resource in any organisation is its people therefore it is important that an organisation stays committed to them throughout in order to achieve the desired goals of the organisation. Talent management flows from the organization’s mission, vision, values, and goals. When handled strategically, the organisations are able to plan, source and reward, develop and retain talent that is fit for purpose.” (P 1, Male, Aged between 37-42 years, B.Tech, 10 years of managerial experience, Administration)

In support, Participant 2 advised,

“Talent management plays an important role in the business strategy since it manages one of the most important assets of the company - its employees. That is why companies should make the effort to effectively manage the employees to help them develop their skills and capabilities in order to retain them. It is also important to utilise the talent optimally to ensure all strategic objectives of the organisation are achieved consistently.” (P 2, Male, Aged between 43-48 years, M.Sc, 13 years of managerial experience, Line Management)

and

“It is central to strategy implementation. You may have the best technology and equipment without the correct people (with requisite skills and experience) you will not achieve your organisational goals.” P 6, Male, Aged between 55-60 years, B.Sc. Eng., 29 years of managerial experience, Line Management)

Theme: The business case for the measurement of talent management components

From the responses of the participants, it was evident that the majority agreed that the business case for the measurement of talent management components evolved around its effectiveness and efficiency, obtaining information that can contribute to decision-making in talent management matters and improved talent management. The sub-themes are presented in Table 3 below.

TABLE 3: Rationale for the measurement of talent management components/activities.

EMERGING THEMES	PARTICIPANTS					
Reasons for measurement talent management activities include:	P1	P2	P3	P4	P5	P6
To determine their effectiveness and efficiency.	x	x	x	x	x	x
Better / improved management.	x		x	x	x	x
Have facts and figures when motivating for more investment in them.	x	x	x	x		
Provide information meant to aid strategic decision-making on talent management matters.	x	x	x	x		x
Determine their alignment to strategy and impact to bottom-line.					x	x

Some supporting comments of the participants include:

“The reasons for the measurement of talent management activities/components include: getting an idea of whether the initiative is effective and efficient or not; and since the implementation of any HR practice does not come cheap, authorities need to know if the cost of implementing it were not fruitless and wasteful expenditure.” (P 2, Male, Aged between 43-48 years, M.Sc, 13 years of managerial experience, Line Management)

And

“Measurement of talent management activities is important because it will enable HR to provide effectiveness facts and figures to the CEO when motivating for increased budget for implementing their planned activities like improved salaries and benefits additional training courses for staff to attend for the purposes of improving the skills, etc.” (P 4, Female, Aged between 43-48 years, LLB, Seven years managerial experience)

And

“Measurement of any talent or HR activity enables management to know if that initiative is effective or not and the contribution it makes to the achievement of the organisational goals or objectives.”

P 5, Male, Aged between 43-48 years, B.A. Hons, 11 years of managerial experience, Line Management

Theme: Definition of talent return on investment

Most of the participants were in agreement that talent return on investment evolves around the outcomes of talent management and especially financial benefits. Factors such as “benefits”, “finances”, “monetary”, “profitability”, “performance”, “sustainability” and “competitiveness” emerged. The sub-themes are presented in Table 4 below.

TABLE 4: Definition of talent return on investment

EMERGING THEMES	PARTICIPANTS					
Talent ROI as:	P1	P2	P3	P4	P5	P6
Measure of monetary benefits.	x			x	x	
Evaluation of benefits that accrue after implementing talent management initiatives/processes.	x	X	x	x	x	X
Quantification of talent impact on the profitability of the organisation.		X	x			X
Business performance improvement value.			x			X
Achievement of strategic goals of sustainability and competitiveness.	x				x	
Talent management expenses/investments/costs justification.		x		x	x	x
Financial analysis to determine the outcome of talent management processes.	x	x			x	x
Financial figures that can be used to aid decision-making.		x				x

The definitions of some of the participants included:

“Talent ROI is the measure of the cost-benefit in monetary or non-monetary values to evaluate the results of the talent development efforts in support of the organisations strategic goals. For e.g. monetary benefit can be measured focusing on profit margin or production cost. Non-monetary benefit can be measured focusing on production output, employee lifecycle etc.” P 1, Male, Aged between 37-42 years, B.Tech, 10 years of managerial experience, Administration

And

"It is the quantification of benefits that accrue to the organisation after spending money in implementing talent management initiatives. This is meant to quantify the impact of talent management initiatives and people in general on the performance of the business." P 3, Female, Aged between 31-36 years, MBL, Six years managerial experience, Administration

And

"Measure of financial returns on expenses incurred when talent management programmes such as training, induction, performance management, recruitment and selection, etc, are implemented in order to ensure that the company's strategic objectives are achieved and thereby ensure that the organisation remains sustainable and in the process have a justification to spent more for talent development." (P 5, Male, Aged between 43-48 years, B.A. Hons, 11 years of managerial experience, Line Management)

And

"It is the ratio of what you get out vis-a-vis what the organisation has invested on talent management initiatives or interventions that are meant to ensure that strategic goals of long-term competitiveness and sustainability are achieved. These figures can be used to aid decision-making on whether or not the organisation can spend more on talent management activities." (P 6, Male, Aged between 55-60 years, B.Sc. Eng., 29 years of managerial experience, Line Management)

Theme: Current application of ROI, metrics and analytics

The responses of the participants were many and varied. All participants were in agreement that the current application HR metrics is applied to determine the labour turnover rate. The majority of other responses indicated absenteeism rate, training costs, and demographics. The participants however indicated that ROI and talent analytics are not applied. The sub-themes are reported in Table 5 below.

TABLE 5: Current application of ROI, Metrics and Analytics

EMERGING THEMES	PARTICIPANTS					
Current Application of ROI, Metrics and Analytics	P1	P2	P3	P4	P5	P6
Productivity.	x					
Absenteeism rate.	x	x		x	x	X
Training attended/conducted.	x	x	x	x	x	
Training cost reporting vs. training budget.		x			x	
Bursaries allocated.		x	x	x		
Internships and apprenticeships.		x		x		
Demographics (Race, Gender and PWDs representivity).	x	x		x		X
Labour disputes referred.					x	
Cost of production / Man hours.						x
Labour turnover rate.	x	x	x	x	x	x
Disabling Injury Frequency Rate (DIFR).	x					x
Disabling Injuries (DI).						x
No talent return on investment	x	x	x	x	x	x
No talent analytics	x	x	x	x	x	x

Some of the responses of the participants included the following:

At the current moment the institution does not quantify the return on the investment. The institution do quantify the training received and cost involve but do not determine the benefit of training with regard to return on investment. The institution also lacks comparing year to year, only quantify the training conducted and budget per financial year. On metrics, there is absenteeism rate, labour turnover, race and gender representativity for employment equity reporting and compliance, bursaries allocated, no of people on internship programs. (P 2, Male, Aged between 43-48 years, M.Sc, 13 years of managerial experience, Line Management)

And

“The organisation has metrics such as labour turnover (technical skills and at management level); training conducted vs. WSP; training costs; numbers of employees on the bursary schemes and other programs. There is no talent ROI that I’m aware of and there are no talent analytics that are applied. The impact and contribution of talent management initiatives are not quantified even though there are KPI that HR reports on quarterly.” (P 3, Female, Aged between 31-36 years, MBL, Six years managerial experience, Administration)

Theme: Talent ROI, metrics and analytics relevant for the institution

The responses to this question were many and varied. Most of the participants were in agreement that training effectiveness is essential for the institutions followed by productivity measures for the organisation and HR and talent analytics (i.e. vacancy rates). The sub-themes are reported in Table 6 below.

TABLE 6: Talent ROI, metrics and analytics relevant to the institution

EMERGING THEMES	PARTICIPANTS					
Talent ROI, Metrics and Analytics relevant to the institution	P1	P2	P3	P4	P5	P6
Productivity measures (organisational and HR).	x		x	x	x	
Absenteeism rate.	x		x			
Training attended/conducted.						X
HR planning (plan vs. actual implementation).		x				X
Training cost reporting vs. training budget.						x
Demographics (Race, Gender and PWDs representivity).	x				x	
Labour disputes referred.						x
Cost of production/ Man hours.			x			
Labour turnover rate.	x				x	
Disabling Injury Frequency Rate (DIFR).						
Overtime trends.					x	
HR Costs / overall costs of the company.	x		x			
Talent analytics (vacancy rate trends).	x	x	x	x		
Time to fill vacant posts.		x	x			
Talent needs forecasting / projected production output.	x		x	x		
Talent ROI measures.				x		x
Employee satisfaction surveys.			x			
Training ROI.		x			x	x
Compensation: Offers Accepted / rejected.		x	x			x
Succession planning implementation.		x				
Talent retention metrics.				x	x	
Training effectiveness measures.	x	x	x	x	x	

Employee Performance improvement / teams / organisation.				x	x	

Some of the responses of the participants included:

“On Talent ROI, there must be productivity measures such as HR costs vs. overall costs of the organisation; Metrics: Labour turnover rate; Absenteeism rate; Gender and Diversity measures; Training effectiveness. On analytics - vacancy and post occupancy rate trends over the five (5) years of the business plan; forecasting of talent needs in line with projected water production and supply in the area of jurisdiction. (P 1, Male, Aged between 37-42 years, B.Tech, 10 years of managerial experience, Administration)

And

“The organisation needs productivity measures for talent ROI. On metrics: Vacancy rate; talent retention metrics; training effectiveness; performance improvement of individual employee measures, teams and the organisation. On analytics: labour needs forecasting/water demand projections.” (P 4, Female, Aged between 43-48 years, LLB, Seven years managerial experience, Administration)

And

“For ROI: Productivity measures. With regards to metrics there must be performance Management and training impact metrics; there must also be retention of Technical and managerial skills metrics such as labour turnover; Employment equity measures such as gender representation and PWDs.

Analytics: HR must provide information on the following: overtime trends; and for casting based on the metric listed above.” (P 5, Male, Aged between 43-48 years, B.A. Hons, 11 years of managerial experience, Line Management)

DISCUSSION

The primary goal of this study is to investigate how talent return on investment approaches are used in a particular Waterboard organisation in South Africa. According to the study's findings, participants agreed with earlier research that talent management is essential for achieving the strategic goals of businesses through people (see Sareen & Mishra, 2016). Investments in creative people are therefore essential for the long-term viability of businesses (Srivastava & Sharma, 2017). The results also demonstrated the near absence of talent return on investment techniques. Although many HR metrics are used, many are still just basic numbers, and there is a lack of integration between talent metrics, talent analytics, and return on investment (Karthikeyan (2016). This was also apparent in the participants' presentations of their definitions and understandings of talent return on investment (Meri, 2015). From the responses, the participants understand the importance of talent return on investments to assess the effectiveness of training and development activities and guarantee that open positions are filled (see Mohammed, 2019). Therefore, there is a rationale or business case for the measurement of all talent management activities in an organisation which is premised

on the innate requirement of ensuring that each talent management activity has to be relevant, aligned to strategy, measurable through appropriate metrics if their real value is to be known to executive management and/or decision-makers (Armstrong & Taylor, 2017; Kumar, 2016).

Management Implications

The findings of this research study have important implications for the management of the organisation in general and the HR function as the custodian of talent management in the organisation. Currently, neither talent ROI nor analytics were applied in the organisation. The metrics that were applied were limited in their impact on the strategy and the organisation's bottom line but just basic and conventional. In this regard, it is recommended that the HR function should benchmark with organisations in the water sector and high-performance organisations in other sectors on the relevant talent management metrics and best practices, select strategic ones and tier them in the order of importance and impact to both organisational and HR strategies.

Limitations and Recommendations for future research

This research had some limitations. First, a qualitative research approach was followed, focusing only on a selected waterboard institution. The findings can therefore not be generalised to other waterboard sectors. Second, empirical research on talent return on investment is scarce, which limited the study in terms of interpreting the findings. Lastly, the study was cross-sectional with data only collected at one point in time. Longitudinal research can assist in developing a standardised set of talent metrics and return on investment methods that can be applied to track people and business performance more effectively. Future research can include other waterboards to generalise findings. In addition, more research is required to build a theoretical base that can support the calculation of talent return on investment.

CONCLUSIONS

The importance of talent and talent management for sustainable business practice is undeniable. Yet, talent stakeholders neglect to calculate the actual value of talent management interventions to ensure that individual and organisational performance targets are met. The HR function is the custodian of talent management and is responsible for implementing talent measures (talent ROI, metrics and analytics) in consultation with line management since they (line managers and managers of other support functions) are responsible for talent management in their domains. Therefore, more attention should be paid by organisations to applying talent return on investment methodologies to ensure effective and efficient organisations meet societal needs.

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Advancing human resource decision making: The impact of individual cultural orientation in a university setting

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Orientation:

Human resource decision-making is a crucial imperative for line managers. Decision making is highly individual and influenced by complex factors, notably personality, life experience and social and cultural context.

Research purpose:

This investigation focused on understanding the impact of individual cultural values on the human resource decision making of line managers in a university setting.

Motivation for the study:

In addressing the issue of individual cultural differences within organisations, the study provides theoretical and empirical insight on the impact of individual cultural orientation on human resource decision making.

Research approach/design and method:

The study followed a quantitative research approach, using a survey (via QuestionPro) to collect research data. All line managers (N=119) of a single South African university were included in the study, yielding a response rate of 41%. Partial Least Squares Structural Equation Modelling (PLS-SEM) was used to investigate the relationship between the variables.

Main findings:

The study reports empirical evidence confirming that individual cultural orientation impacts of the decision-making styles of line managers.

Practical/managerial implications:

Individual cultural values need to be considered as a factor in human resource decision-making. It is imperative for line managers be cognisant of how their individual cultural values impact their decision-making styles.

Contribution/value-add:

The study contributes both theoretically and empirically to comprehending the impact of individual cultural values on human resource decision-making. It also highlights the need for managers to gain insight into their personal orientation and behaviour.

Keywords: culture; decision-making, decision-making styles; human resource decision-making; individual cultural values; universities, line managers, South African context

Introduction

The 21st century is characterised by pertinent challenges such as globalisation, technological advancement, increased diversity, and social and organisational change. Due to the digitalisation and virtualisation of organisations in a highly complex national and international sphere the role of managers has become increasingly crucial (Arkenberg, Lee, Evans, & Westcott, 2022; HR Trends Report, 2022). One of the main managerial tasks is the effective deployment of human capital to ensure organisational sustainability and growth. Managers at all levels of the organisation need to make effective human resource decisions. This requires them to maintain good communication practices and inter-personal relationships in guiding those at the lower levels (SABPP, 2018).

An added challenge in the new world of work is the management of workforce diversity as a constant variable. Workforce diversity refers to employee's similarities and differences in terms of age, race, gender, sexual orientation, religion, ability and even disability (Saxena, 2014). Workforce diversity can also be defined in terms of people's cultural differences and/or similarities. According to Jablonski and Myers (2010) workforce diversity is one of the issues which are frequently attributed to the influence of culture. The notion of culture which originates from the study of Anthropology is described as "the collective programming of the mind that distinguishes the members of one group or category of people from others" (Hofstede, 2011:3). Willcoxson and Millett (2000) notes that culture is influenced by history and the evolution of human societies. They explain culture as certain patterns of behaviour and beliefs by groups of people to interpret and interact with the world around them.

The notion of culture can be divided into different levels including national culture, organisational culture and individual cultural orientation (Weustink, 2014). According to Smale (2016) national culture is described in terms of the integration of minds (e.g., beliefs) that are shared by groups of people on a national level. National culture involves broad distinguishable values that characterise different countries – this transcends groups and individuals. Organisational culture entails the beliefs, values and assumptions of the organisational owners; the learning experiences of employees as the organisation evolves, including the new beliefs, values and assumptions created by new members of the organisation (Schein, 2004).

Values are a fundamental part of culture as they shape the behaviour of individual members (Schwartz, 2006). Societal members do not only learn cultural values from each another (through the process of enculturation), but they are also exposed to the values of other cultural groups, especially when working and residing in diverse environments (also referred to as acculturation). As a result, individuals can ascribe to values that correspond with their personal convictions. Especially in a highly diverse environment such as the South African situation, individuals are exposed to multiple realities, hence individuals can develop unique individual cultural orientations (Hofstede, 2011).

Research on decision-making and culture is not new. In the 21st century, researchers like Wang, McNally and Lenihan (2019) and Bikram and Sunpreer (2019) have focused on these concepts. Wang et al. (2019) focused on the role of social capital and culture in social decision-making constraints, while Bikram and Sunpreer (2019) investigated the varying effects of the cultural dimensions on decision-making. Evans and Stanovich (2013) distinguished between two systems operating within people's minds when making decisions: the intuitive-experiential base, which is the ability of an individual to think in a logical way; and analytical-rational thinking, which refers to intuitive decision-making characterised by hunches and feelings.

Jamaludin, Aziz and Mariapan (2018) found that decision-making can be influenced by user-created content and psychological factors such as motivation, loyalty, and social cognisance. This corresponds with the cultural values of Schwartz (Manzato, 2019). In line with the above, individual cultural values and the process of decision-making have become an important part of managerial decision-making.

Universities operate in a highly complex sphere. They need to consider multiple role players in fulfilling their mandate to society – namely to impart knowledge through teaching and learning, to serve the communities they operate in and to expand new and existing knowledge to advance the plight of humanity (Lategan, 2017). The role players include business, industry, students, local communities, national and international partnerships, and the like. Sourcing highly qualified human capital is a main concern for universities, especially highly skilled academics, and lecturers. This notion is supported by the Critical Skills List of 2022 that indicates university lecturers as a scarce skill which contributes to the importance of sound management practices in universities.

Given this the main objective of the study was to ascertain the impact of individual cultural orientation on the human resource decision making styles of line managers in a university setting.

Purpose

The globalised world of work requires highly skilled managers that can manage the challenges of workforce diversity within a complex and interconnected workplace. This also applies to universities that need to adequately manage their human capital and for line managers to make appropriate human resource decisions despite their own individual beliefs and values. This study investigated the extent to which individual cultural orientation influences the human resource decisions of line managers in a university setting.

Literature review

Individual cultural orientation

As alluded to before, cultural orientation represents the degree to which individuals are influenced by the traditions, norms, and practices of their own and/or other cultural groups (Ruan, 2016; Rao & Kunja, 2019). As such, individual cultural orientation relates to a person's orientation towards the mainstream culture and their own ethnic values, as well as their personal endorsement of the cultural values of other groups of people (Neblett, Rivas-Drake & Umaña-Taylor, 2012). The social psychologist Shalom Schwartz (2015) view the concept of culture in terms of beliefs and values that drive individual behaviour. Beliefs and values guide the actions and behaviours of individuals within a specific cultural group and/or society.

A person's individual orientation towards specific cultural values can determine their behaviour in the workplace. Due to its applicability to the study, the Schwartz Value Survey (SVS) served as theoretical framework (Schwartz, 2015). Schwartz identified ten individual values based on the assumption that values lend meaning to human life. These value are

- 1) achievement (an individual's competence pertaining to various cultural standards like self-respect to obtain social approval),
- 2) power (social esteem in terms of authority, wealth and social power),
- 3) universalism (the concern for to the protection of nature and human well-being),
- 4) benevolence (a concern for the wellbeing of family and friends within the group),
- 5) stimulation (the individual desire to have a daring, varied and exciting life),
- 6) self-direction (an individual's need to be independent and in control),
- 7) conformity (emphasise self-restraint and the ability to adhere to societal a dn work expectations),
- 8) tradition (relates to respecting the beliefs and customs of one's culture),
- 9) security (individual needs for safety and stability) and
- 10) hedonism (individual needs for pleasure and self indulgence).

Decision making

According to Jami (2018) the concept of 'decision' is taken from the Latin word 'Decidere' which means *cutting* off amongst alternatives. Therefore, decision-making is defined as the process of choosing between alternatives, and includes awareness of the problem, one's perception about the problem, reasoning on how to solve the problem and making judgement on the alternatives (Kumar & Gautam, 2018).

As indicated above, decision making is a process which involves going through careful considerations to make conclusions on identified problems. According to Bruwer and Cilliers (2014) decision making is a process which involves a series of steps. This is supported by Lunenburg (2010:11) stating that decision making involves "identifying problems, generating alternatives, evaluating alternatives, choosing an alternative, implementing the decision, and evaluating decision effectiveness". Dwek (2017) indicates that the process of decision making is described in terms of decision styles that are used to choose between alternatives. Decision-making styles originate from the field of cognitive psychology (Fischer, Soyeze, & Gurtner 2015). Similarly Bavoľár and Bačíkova-Slešková (2018) argue that decision-making styles are explained as ways in which individuals make decisions.

To better understand the notion of decision making, this study adopted one of the most used instruments in the field of cognitive psychology, namely Scott and Bruce's (1995) decision-making styles. Scott and Bruce (1995) suggest that decision-making is a dynamic process

where individuals do not rely on one decision-making style only. They identified five decision-making styles namely the rational, intuitive, dependent, avoidant and the spontaneous decision-making styles.

The rational decision-making style is characterised by systematic and logical evaluation of alternatives, whilst the intuitive decision-making style is typified by a person's reliance on feelings to make decisions. The dependent decision-making style involves a person's effort to search for advice from others in order to make a decision while the avoidant decision-making style explains the effort of an individual to avoid making the decision. The spontaneous decision-making style is described by a sense of urgency and the need to get through the decision-making process as soon as possible (Scott & Bruce, 1995). These decision-making styles served as theoretical base for measuring the decision-making styles of line managers in this study.

Data and methods

Research approach and design

This study adheres to the ontological stance of objectivism which postulates that social phenomena and their meanings have an existence that is independent of social actors (Bryman, 2004). This aligns with the epistemological stance of positivism which entails that knowledge is exact and objective allowing for the use of numbers and statistics. Based on the objectives of this study a quantitative research method was thus adopted and a structured questionnaire was used to gather the data (Berryman, 2019).

Measures

Data was gathered from respondents using a structured questionnaire and partial least squares structural equation modelling (PLS-SEM) was applied to determine the relationships between the variables. The researchers obtained formal permission from the institution prior to data gathering.

Participants

All the line managers employed by the university (119) were targeted for data collection using QuestionPro (N=119). The response rate was 41%.

Measuring instrument

The structured questionnaire consisted of two sections. Section A measured the individual cultural orientation of respondents using the Value Survey Model of Schwartz (1992) and Section B measured the general decision-making styles of line managers using the conceptualisation of Scott and Bruce (1995).

Design

The survey research design was followed in this study. Due to its proximity to the researcher's and financial constraints a single university in South Africa was targeted for data collection.

Analysis

PLS-SEM was used to determine the relationship between the variables.

Ethical consideration

This study adhered all necessary ethical standards for conducting research. Fromal ethical clearance was obtained form the Central University of Technology, Free State (CUT) (ethical clearance no FMSEC02/20) The researchers also obtained formal permission from the university to conduct the study. Participants were informed via email (with the questionnaire link attached) that their participation was voluntary, anonymous and that all responses would be treated confidentially.

Results

Procedure

Due to the complex nature of testing the relationships between two highly individual constructs such as individual cultural values and decision-making, five PLS-SEM models were generated. The five PLS-SEM models were evaluated in a two-stage process assessing both the outer and inner models. After assessing the outer models of each of the five models tested to confirm reliability and validity (Fornell & Larcker, 1981).

To assess the reliability and validity of the measurement models indicator reliability, convergent validity, internal consistent reliability, and discriminant validity were assessed. The following criteria applied to the reliability and validity assessment of the measurement models.

- For indicator reliability indicator loadings of >0.5 shows that the item is a good measurement of a latent construct. Based on guidelines provided by Hulland (1999) indicators that had loadings lower than 0.50 were removed from all the measuring models. No indicators were removed from the first SEM model. From the second SEM model a total of three indicators namely Dependent02, Univers01, Univers02 were removed. In addition, a total of three indicators were removed from the third SEM model namely Intuitive02, Univers01 and Univers02. Moreover, only the Rational01 indicator had to be removed from the 4th SEM model. Lastly, 2 indicators namely Achievement04 and Spont01 were removed from the 5th SEM model.
- Convergent validity is the extent to which a measure correlates positively with alternative measures of the same construct (Hair, et al., 2017). Average Variance Extracted (AVE) assesses convergent validity (Janadari et al., 2016). An AVE greater than 0.5 was applied to the models (Bagozzi & Yi, 1988; Fornell & Larcker, 1981).
- Internal consistency reliability was assessed using the Composite Reliability (CR) and Cronbach's Alpha (α). A CR greater than 0.7 indicates adequate internal consistency reliability (Gefen, Straub & Boudreau, 2000). For Cronbach's Alpha a score of between 0.60 to 0.70 were considered acceptable (Hair, Hult, Ringle & Sarstedt, 2017).
- Discriminant validity is the extent to which a construct is truly distinct from other constructs by empirical standards (Hair et al., 2017). To assess discriminant validity of the measurement models the Fornell and Larcker criteria was applied.

In assessing the inner structural models, a two-step approach was used: 1) assessing the significance and relevance of the structural model relationships and 2) assessing the level of R^2 . The direct effects of all the hypothesised relationships were evaluated by means bootstrapping analysis (a resampling technique that draws many subsamples from the original data, with replacement and estimates models for each subsample) (Hair et al., 2017). The standardised beta and t-values were calculated by the bootstrapping procedure with a resample of 5000. R^2 is a measure of the proportion of variance in a latent endogenous

construct that is explained by other exogenous constructs expressed as a percentage (Chin, 1988).

Findings

The section below presents the findings of the PLS-SEM analysis.

SEM model 1: Avoidant decision-making style

The research model for the avoidant decision-making style (DMS) is presented in figure 1.

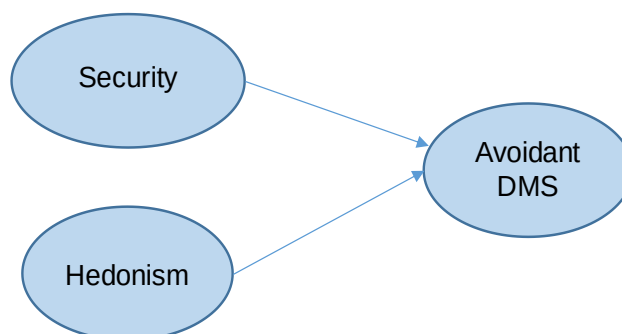


Figure 1: Research model for the avoidant decision-making style

The following applies to the construction of SEM model 1 presented in figure 1 above. Indicator reliability: All indicator loadings were above the 0.5 threshold prescribed by Hulland (1999). It can therefore be concluded that the measurement model for model 1 exhibit indicator reliability.

Convergent validity: The AVE of all constructs in the measurement model were above the 0.5 threshold indicating convergent validity of all constructs - avoidant DMS was 0.648, hedonism, 0.635 and security 0.639.

Internal consistency reliability: The CR and Cronbach's Alpha (α) of all items are above the 0.70 indicating an acceptable level of internal consistency reliability. Avoidant DMS CR=0.902; α =0.869; hedonism CR=0.832; α =0.809; security CR=0.898; α =0.863.

Discriminant Validity: The Fornell-Larcker criterion shows that the square root of the AVE of each latent variable is higher than any correlation with any other latent variable, indicating the discriminant validity of the measurement model. See table 1 below.

Table 1: Fornell-Larcker criterion

	Avoidant DMS	Hedonism	Security
Avoidant DMS	0.805		
Hedonism	0.308	0.797	
Security	-0.306	0.091	0.799

Then path-goal results this show the following:

Hypothesis	Relationship	Std Beta	Std Error	t-value	p-value	Decision

H1	Hedonism -> Avoidant DMS	0.338	0.165	2.055	0.041	Accepted
H2	Security -> Avoidant DMS	-0.336	0.163	2.059	0.040	Not Accepted

Figure 2 below indicates that the R^2 value of avoidant DMS is 0.207. The hedonism ($\beta=0.338$, $p=0.041$) and security ($\beta=-0.336$, $p=0.040$) constructs collectively explain 20.7% of the variance in the avoidant DMS construct. Results show that the hedonism and security constructs had a medium predictive power towards the avoidant DMS construct (Cohen, 1992).

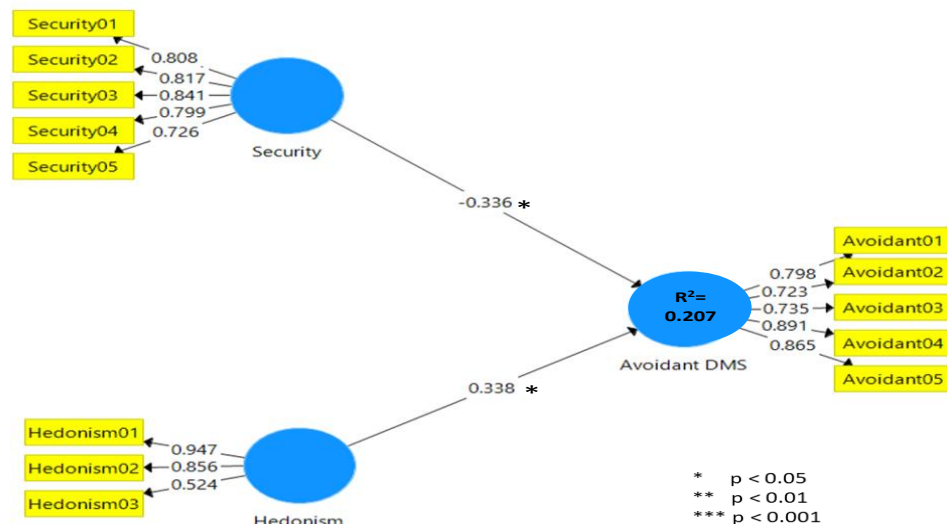


Figure 2: Avoidant DMS SEM model

Figure 2 shows the relationships between security and hedonism and avoidant DMS. There is a statistically significant negative relationship between security and avoidant DMS (-0.336) and there is a statistically positive relationship between hedonism and avoidant DSM (0.338).

SEM model 2: Dependent decision-making style

The research model for dependent decision-making style is presented in Figure 3.

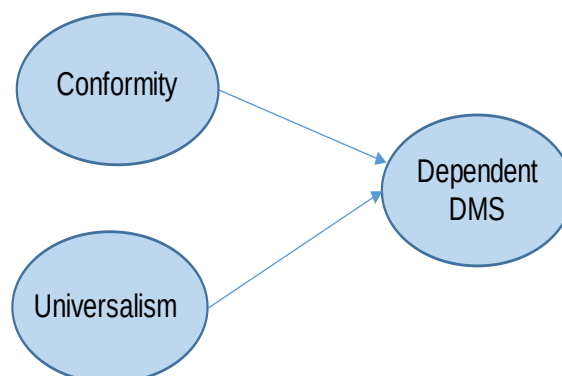


Figure 3: Research model for the dependent decision-making style

The following applies to the construction of SEM Model 2.

Indicator reliability: All indicator loadings were above the 0.5 threshold prescribed by Hulland (1999). It can therefore be concluded that the measurement model for SEM model 2 exhibit indicator reliability.

Convergent validity: The AVE of all constructs in the measurement mode was above the 0.5 threshold prescribed by Fornell and Larcker (1981) - conformity AVE=0.703, dependent DMS=0.631 and universalism AVE=0.618.

Internal consistency reliability: CR and Cronbach's Alpha (α) of all items were above the 0.70. Conformity CR=0.905, α =0.860, dependent DMS CR=0.872; α =0.805 and universalism CR=0.862; α =0.787.

Discriminant Validity: The Fornell-Larcker criterion below indicates the discriminant validity of the measurement model. See Table 2 below.

Table 2: Fornell-Larcker criterion

Constructs	Conformity	Dependent DMS	Universalism
Conformity	0.839		
Dependent DMS	0.574	0.795	
Universalism	0.398	0.608	0.786

Path model results thus shows the following:

Hypothesis	Relationship	Std Beta	Std Error	t-value	p-value	Decision
H3	Conformity -> Dependent DMS	0.394	0.140	2.815	0.005	Accepted
H4	Universalism -> Dependent DMS	0.451	0.133	3.399	0.001	Accepted

Figure 4 below shows R^2 of dependent DMS is 0.500. This means that the conformity (β =0.394 p =0.005) and universalism (β =0.451, p =0.001) constructs collectively explain 50.00% of the variance in the dependent DMS construct. Conformity and universalism had a high predictive power towards the dependent DMS construct (Cohen, 1992).

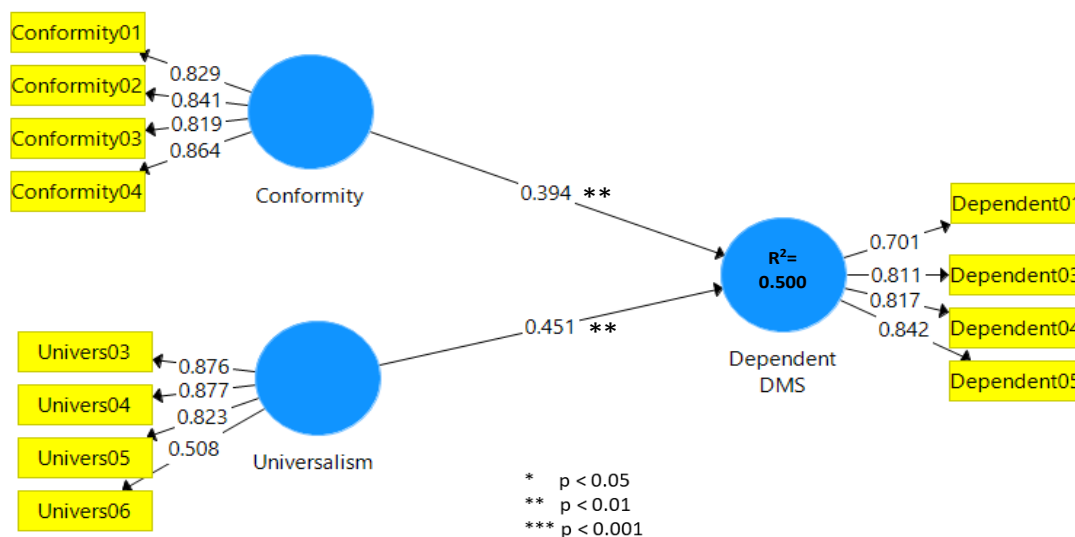


Figure 4: Dependent DMS SEM model

Figure 4 presents the relationship between conformity and universalism and dependent DMS. There is a positive statistical relationship between conformity and dependent DSM (0.394). Similarly, there is a statistically positive relationship between universalism and dependent DSM (0.451).

SEM model 3: Intuitive decision-making style

The research model for intuitive decision-making style is presented in Figure 5.



Figure 5: Research model for the intuitive decision-making style

The following applies to the construction of SEM Model 3.

Indicator reliability: All indicator loadings were above the 0.5 threshold prescribed by Hulland (1999). It can therefore be concluded that the measurement model for SEM model 3 exhibit indicator reliability.

Convergent validity: The AVE of all constructs in the measurement model is above the 0.5 threshold prescribed by Fornell and Larcker (1981) with intuitive DMS=0.502; universalism=0.516

Internal consistency reliability: The CR for intuitive DMS was 0.793 and $\alpha=0.669$. Although Cronbach's Alpha for intuitive DMS is only slightly below the 0.7 threshold it is still at an acceptable level. The CR for universalism was 0.837 and $\alpha=0.755$

Discriminant validity: The Fornell-Larcker criterion in table 3 shows the AVE of each latent variable is higher than any correlation with any other latent variable, indicating the discriminant validity of the measurement model.

Table 3: Fornell-Larcker criterion

Constructs	Intuitive DMS	Universalism
Intuitive DMS	0.694	
Universalism	0.476	0.783

The path-goal results show the following:

Hypothesis	Relationship	Std Beta	Std Error	t-value	p-value	Decision
H5	Universalism -> Intuitive DMS	0.476	0.186	2.558	0.011	Accepted

None of the other cultural constructs displayed a statistically significant relationship with the intuitive DMS construct.

According to Figure 6 below the R^2 value of intuitive DMS is 0.266. This means that the universalism ($\beta=0.476$, $p=0.011$) construct explain 20.7% of the variance in the intuitive DMS construct. Universalism had a medium predictive power towards the intuitive DMS construct (Cohen, 1992).

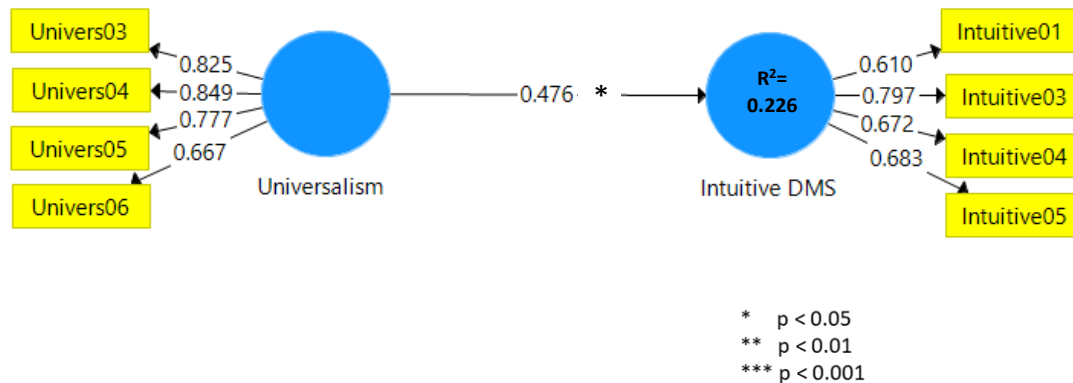


Figure 6: Intuitive DMS SEM model

Figure 6 shows the relationship between universalism and intuitive DMS. The findings indicate that there is a statistically significant relationship between universalism and intuitive DMS (0.476).

SEM: Model 4: Rational decision-making style

The research model for intuitive decision-making style is presented in Figure 7.

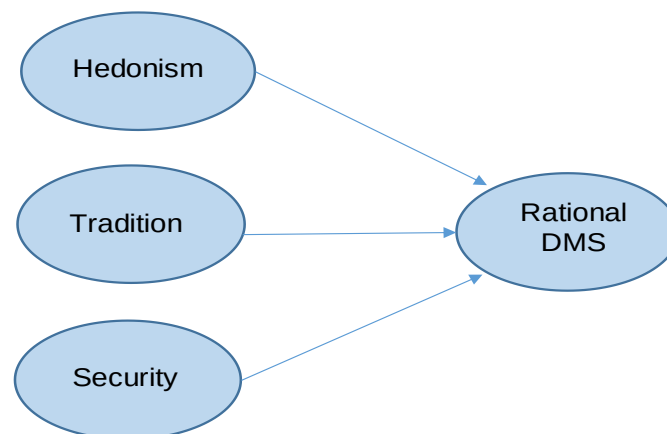


Figure 7: Research model for the rational decision-making style

The following applies to the construction of SEM Model 4.

Indicator Reliability: All indicator loadings were above the 0.5 threshold prescribed by Hulland (1999). It can therefore be concluded that the measurement model for SEM model 4 exhibit indicator reliability.

Convergent Validity: With the AVE of hedonism=0.718, rational DMS=0.559, security=0.646 and tradition=0.536 findings confirm the convergent validity of all constructs.

Internal consistency reliability: The CR for hedonism=0.883 α =0.809, rational DMS=0.835, α =0.735, security=0.901, α =0.863, tradition=0.822 α =0.714 indicates that all constructs display an acceptable level of internal consistency reliability.

Discriminant Validity: The Fornell-Larcker criterion in Table 4 shows acceptable discriminant validity of the measurement model.

Table 4: Fornell-Larcker criterion

	Hedonism	Rational DMS	Security	Tradition
Hedonism	0.847			
Rational DMS	0.436	0.748		
Security	0.216	0.584	0.804	
Tradition	0.300	0.505	0.377	0.732

The path-goal results showed the following:

Hypothesis	Relationship	Std Beta	Std Error	t-value	p-value	Decision
H6	Hedonism -> Rational DMS	0.264	0.105	2.512	0.012	Accepted
H7	Security -> Rational DMS	0.427	0.123	3.477	0.001	Accepted
H8	Tradition -> Rational DMS	0.265	0.114	2.324	0.020	Accepted

Figure 8 shows the R^2 value of rational DMS as 0.207. This means that the hedonism, security, and tradition collectively predict 20.7% of the variance in the rational DMS construct. Hedonism, security, and tradition had a medium predictive power towards the rational DMS construct (Cohen, 1992).

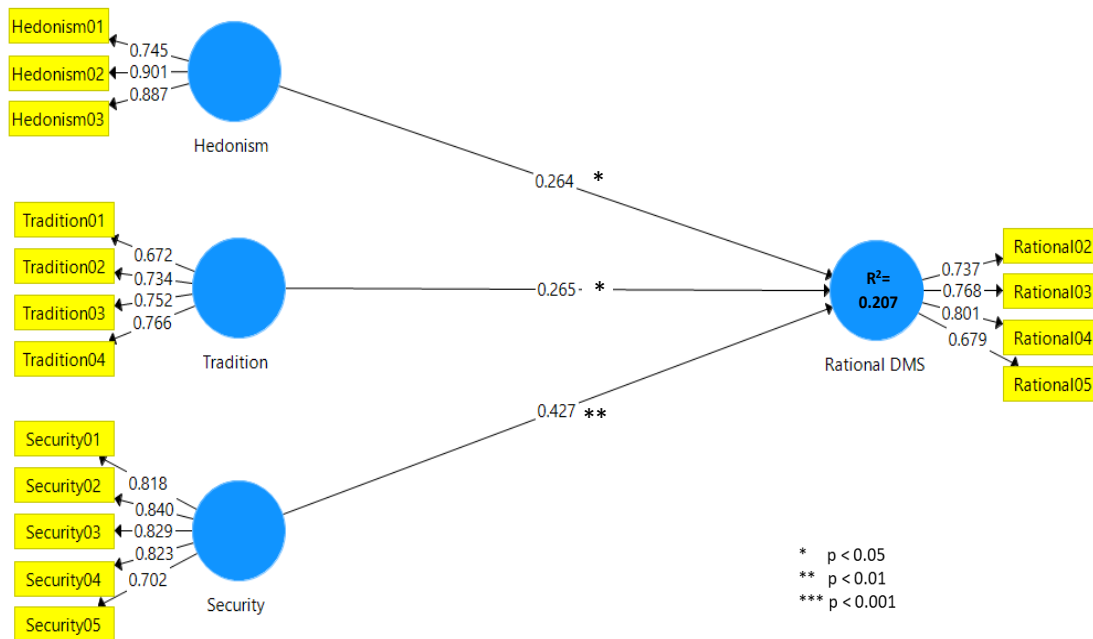


Figure 8: Rational DMS SEM model

Figure 8 shows the relationships with between hedonism, tradition and security and rational DMS. Findings show a positive statistically significant relationship between hedonism and rational DMS (0.264). Similarly, Figure 8 shows a statistically significant relationship between tradition and security and rational DMS (0.265 and 0.427).

SEM model 5: Spontaneous decision-making style

The research model for the avoidant decision-making style is presented in Figure 9.

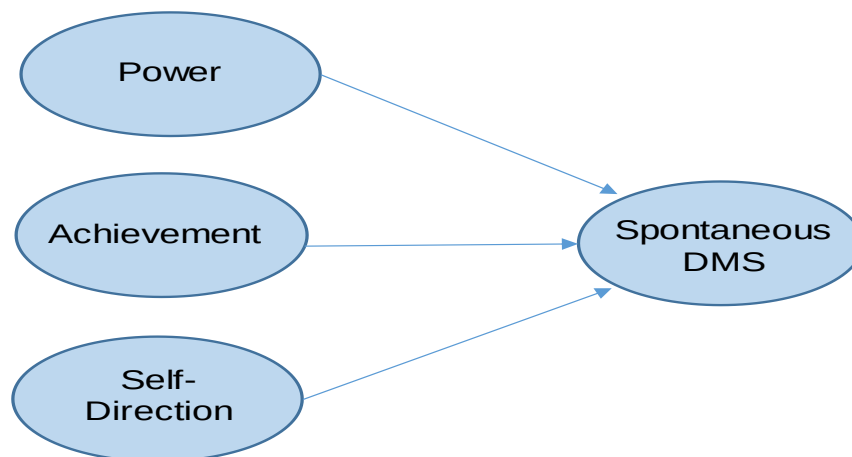


Figure 9: Research model for the spontaneous decision-making style

Indicator reliability: All indicator loadings were above the 0.5 threshold prescribed by Hulland (1999). It can therefore be concluded that the measurement model for SEM model 5 exhibit indicator reliability.

Convergent validity: The AVE of all constructs (Achievement=0.818, Power=0.616, Self-Direction=0.591 Spontaneous DMS=0.744) indicates convergent validity of all constructs.

Internal consistency reliability: The CR and Cronbach's Alpha of all items are above the 0.70 threshold (achievement CR=0.931, α =0.898, power CR=0.828, α =0.709, self-direction CR=0.850, α =0.762 and spontaneous DMS CR=0.897, α =0.829) which indicates that all constructs display an acceptable level of internal consistency reliability.

Discriminant validity: According to table 5, the square root of the AVE of each latent variable is higher than any correlation with any other latent variable, confirming the discriminant validity of the measurement model.

Table 5: Fornell-Larcker criterion

	Achievement	Power	Self-Direction	Spontaneous DMS
Achievement	0.905			
Power	0.435	0.785		
Self-Direction	-0.054	0.163	0.768	
Spontaneous DMS	0.372	0.501	0.411	0.863

The path-goal findings show the following:

Hypothesis	Relationship	Std Beta	St-Error	t-value	p-value	Decision
H9	Achievement -> Spontaneous DMS	0.248	0.115	2.156	0.031	Accepted
H10	Power -> Spontaneous DMS	0.332	0.117	2.845	0.004	Accepted
H11	Self-Direction -> Spontaneous DMS	0.371	0.116	3.185	0.001	Accepted

Figure 10 shows that the R^2 value of spontaneous DMS is 0.411. This means that the achievement, power, and self-direction constructs collectively predict 41.1% of the variance in the spontaneous DMS construct. Achievement, power, and self-direction had a high predictive power towards the spontaneous DMS construct (Cohen, 1992).

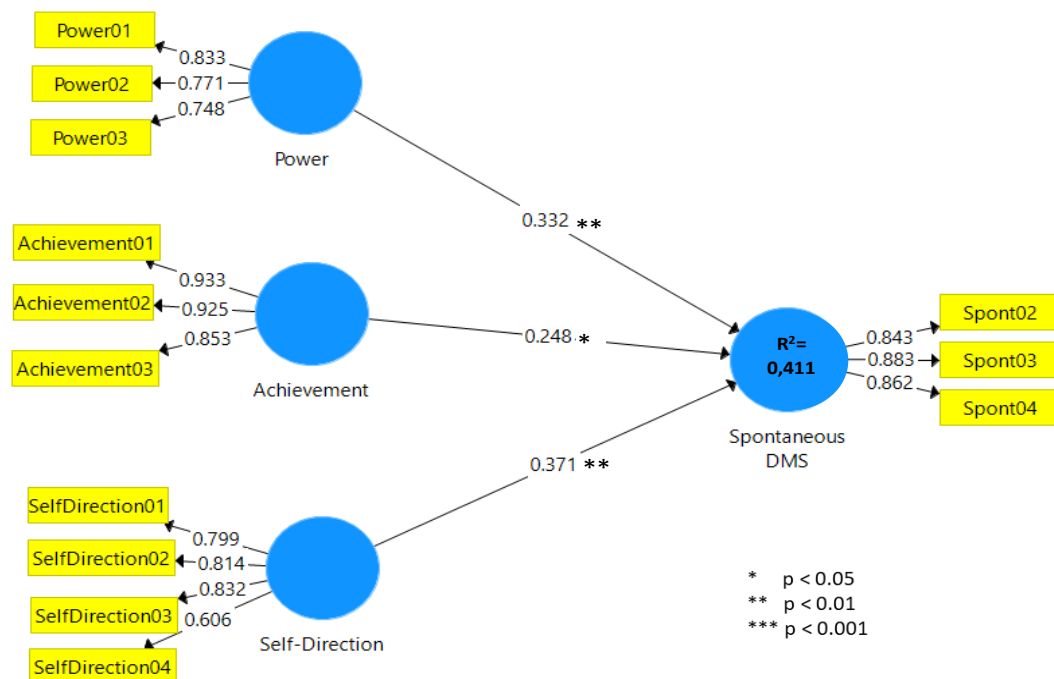


Figure 10: Spontaneous DMS SEM model

Figure 10 signifies the relationship between power, achievement and self-direction and spontaneous decision-making style. Findings show a positive statistically significant relationship between power and spontaneous decision-making style (0.332). A positive statistically significant relationship between achievement and spontaneous DSM were also recorded (0.248). Finally, there is a positive statistical relationship between self-direction and spontaneous decision-making style (0.371).

Discussion

The study found that line managers at the university ascribe the following individual values: hedonism, universalism, conformity, achievement, tradition, and security. The two dominant decision-making styles amongst line managers were the dependent decision-making style and rational decision-making style. Consistent with the dependent decision-making style, line managers prefer to consult before making decisions – thus making decisions with the support and inputs from other individuals (Verma & Rangnekar, 2015). The rational decision-making style allows for systematic and logical decisions to be made. In this sense managers rely on facts as opposed to their intuition and they are objective, adhering to the rules, regulations, and processes of the university.

The findings of the current study propose that values such as loyalty towards family and friends, one's individual beliefs (e.g., equal treatment for all) and the individual need for health and safety can differ from person to person, thus resulting in different decision-making styles by line managers (Negulescu 2014). This implies a relationship between individual values and decision-making styles. This was confirmed by the PSL-SEM analysis which established that there is a positive statistical relationship between the below-mentioned variables.

The findings show a positive relationship between hedonism and avoidant decision-making style ($\beta = 0.338, p = 0.041$) (see figure 2). These findings solidify the relationship between hedonism and avoidant decision-making style. It is common that in an institution of higher learning - decisions pertaining the organisation's human resource can be difficult at times, therefore it is imperative that consistent rules be applied to avoid conflict and dissatisfaction. Findings further show a statistically significant negative relationship between security and avoidant decision-making style ($\beta = -0.336, p = 0.040$) (see figure 2). This indicates that as the individual value of security increases (e.g., having the need to avoid danger and have stability in one's life) the manager's tendency to avoid making decisions decreases.

The findings of this study further indicate that there was a positive statistically significant relationship between conformity and universalism and the dependent decision-making style. The dependent decision-making style involves the use of other people's knowledge and inputs to make decisions. At least 50% of the respondents agreed/strongly agreed that they preferred to listen to the views of others and consult before making decisions. Moreover, respondents also indicated that they use other people's past experiences and support to make decisions. Which makes sense in a university setting where there are various parts and parties (organisational policies, employees, labour unions and government legislations) to consider before making any decision, especially decisions pertaining to employees.

There was a statistically significant relationship between universalism and dependent decision-making style ($\beta = 0.451, p = 0.001$) (see figure 4). These results show that line managers at the university involve various parties in their decision-making processes to ensure equality and inclusion. This is especially true when making decisions pertaining to the organisation's human resources. For example, the organisation's recruitment and selection process involve a series of structured meetings with various individuals (notably human resource staff, line managers, trade unions members and other employees who are there to ensure transparency within the process). Similarly, there was a statistically positive relationship between conformity and the dependent decision-making style ($\beta = 0.394, p = 0.005$) (see figure 4). This means that the involvement of others in the decision-making process is an act of being polite, respecting other people's opinions and following organisational rules and regulations.

Findings indicate a high level of compassion at amongst line managers (see figure 6). About 73% of the respondents indicated that they consider being compassionate during the decision-making process as important. Even so, more than half (61.3%) of the respondents indicated that using personal feelings to make decisions is not important. This means that whilst line managers at the university follow rules and procedures, they remain compassionate in the way decisions are made. Thus, keeping balance between the two decision making styles (rational decision-making style and intuitive decision-making style) which may result in making the right decisions for the right problem. The findings of this study further indicate that there is a positive statistically significant relationship between intuitive decision-making style and universalism as one of individual values measured among line managers ($\beta = 0.476, p = 0.011$) (see figure 6). It is for this reason that the act of compassion could be based on the reason that most of the respondents indicated that they believe in equal treatment for all and also that they avoid conflict by listening to other people's opinions.

The findings further indicate a positive statistically significant relationship between rational decision-making style and security, tradition, and hedonism. The rational decision-making style is associated with following rules and processes to make decisions. Rationality in

decision-making further entail the use of facts, analytical skills, and specific procedures to make decisions (Uzonwanne, 2016). The PLS–SEM computations confirmed that there is positive relationship rational decision-making style and security ($\beta=0.427$, $p=0.001$) (see figure 8). These findings show that security has a statistically significant positive impact on rational decision-making style. Therefore, this study confirms that the need for individuals to live and work in safe and secure surroundings away from harm is the driving force behind rationality in decisions made. Moreover, the statistical analysis confirmed that there is positive relationship rational decision-making style and tradition ($\beta=0.265$, $p=0.020$) (see figure 8). This shows that religious beliefs represents order essential to making rational decisions. Finally, the computation of PLS-SEM confirmed that there is a positive statistically significant relationship between rational decision-making style and hedonism ($\beta=0.264$, $p=0.012$) (see figure 8). These findings serve as an indication that the respondents value following rules and regulations in achieving organisational goals.

The findings show a statistically significant positive relationship between rational spontaneous decision-making style and achievement ($\beta=0.248$, $p=0.031$), power values ($\beta=0.332$, $p=0.004$) and self-direction ($\beta=0.371$, $p=0.001$) (see figure 10). For achievement (see figure 10) it is shown that one unit change in achievement values can result in 24% change in spontaneous decisions made. The implication being that line managers need to build a sense of achievement among employees and other stakeholders to create a culture that allows for spontaneous decisions to be made. Similarly, Bala, Kaur and Singh (2017) state that a change in the level of achievement can result in a change in the decision-making style.

For power the results show that managers who make use of power and status to make decisions are more likely to make decisions based on the information they have at their disposal, thus resulting in spontaneous decisions (see figure 10). By reflecting on the scores for power, it is evident that most line managers were opposed to the values of power. The reason for this outcome could mainly be that the organisational structure and stakeholder involvement does not allow for managers to make decisions in an instant without consulting other stakeholders. For self-direction figure 10 shows that as the values of self-direction increase, line managers are more likely to make spontaneous decisions. According to Amit, Mentser, Arieli and Porzycki (2021) self-direction values are the reflection of the person's need to engage in an independent thought and action, together with openness to new ideas and experiences.

Fritzsche (2007) link personal values with individual decision-making behaviour by indicating that the decisions made by managers in the organisation are in response to the situation to be dealt with at the time. This can result in differing behavioural patterns by employees within the organisation as different divisions within the organisation face different problems. These patterns of behaviour include among others – human resource decisions made by line managers from time-to-time. According to Heilman and Kusev (2020:1) “social situations require people to make complex decisions, sometimes involving deferent choices for the self and others”. Therefore, depending on the person's appreciation of nature and the need to preserve relations with those in close contact with, the individual decisions made by managers may differ. This involves the prosocial tendencies that come because of people's dislikes for inequalities within our societies (Heilman & Kusev, 2020).

Conclusion

The main objective of the study was to investigate the impact of individual cultural orientation on human resource decision-making amongst line managers at a single university. The main findings of the study identified that values such as loyalty towards family and friends, one's individual beliefs (e.g., equal treatment for all) and the individual need for health and safety can differ from person to person, thus resulting in different decision-making styles by line managers. The study presented statistical evidence confirming that individual cultural values impact on the decision-making styles of line managers.

A major limitation of the study was the relatively small sample of line managers that participated in the study drawn from a single institution. Future research needs to include more universities and line managers as part of the population.

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Data availability

Upon request the corresponding authors can provide data that support the findings of this study.

Disclaimer

The opinions discussed in this study are those of the authors and do not reflect the position of any affiliated institutions or parties.

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The effects of Human Resource Practices on employee engagement within an organisation.

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ABSTRACT

Employee engagement is a concept of high importance to the development of human resource management, it may be seen as a way in which an employee motivates themselves to fully participate in their work without having to be forced but do so because they see a need in doing their work fully and willingly. The significance of this study is to assess the level of employee engagement within local municipalities to show its importance in achieving organisational goals and to make recommendations to the local municipalities on human resource practices that are effectively embedded to enhance employee engagement. A qualitative study was followed, and in-depth interviews were used to collect data, sampling followed a non-probability sampling approach. The results showed several indicators of poor employee engagement, indicating a need for proper strategies and implementation processes to ensure that all factors that affect employee engagement are covered.

Keywords: GREAT- Growth, Renewal, Enabling, Aspirational, Transparency; IRR- Interview, Protocol, Refinement; EE- Employee Engagement; HR- Human Resources; HRM- Human Resource Management

1. INTRODUCTION

This study focuses on the role of human resource practices in employee engagement levels at local municipalities in the Gauteng province. The background and motivation for the study will be outlined, followed by the problem statement, and aims. Employee engagement is a concept of high importance to the development of human resource management. It seems to be a complicated concept as many researchers and scholars seem to have different opinions when it comes to its definition. Any employee, worker, or leader no matter their rankings is included when we talk about employee engagement, but this study concentrated only on different managers in HR of the stated municipality and their level of employee engagement.

2. RESEARCH PURPOSE

The study aims to assess the role of human resource practices in employee engagement within a municipality in the Gauteng province. Employee engagement may be seen as a way in which an employee motivates themselves to fully participate in their work without having to be forced but do so because they see a need in doing their work fully and willingly. In the current setting where the environment is such that individuals must work remotely and unsupervised, a need was identified for a study to identify the extent of employee commitment and willingness to effectively execute the assigned tasks. It is a necessary conduit for the study to be executed as most of the studies on employee engagement are not fully embedded in municipalities and problems confronted in municipal settings, and a new context to the study will add to the research information on employee engagement. More employees are vulnerable to stressful conditions; thus, their work engagement is of vital importance in the

municipal sector (Joy, 2020). The study was led by the following objectives to identify the current employees engagement strategies utilised within the municipality, to explore employee perceptions surrounding the role of rewards and recognition on employee engagement, to determine employee perceptions surrounding the role of communication in employee engagement, to identify employee perceptions surrounding employee development on employee engagement, to provide recommendations to municipality to effectively enhance human resource practices thereby improving employee engagement levels.

3. LITERATURE REVIEW

3.1. INTRODUCTION

Employee engagement within an organisation is a way of ensuring that employees' feelings and emotional attachments to the company or their duties within an organisation are improved. It is thus important during this pandemic to ensure that employees' morals and emotional states are up to the pressures of their work lives. The key driver to engagement is trust, by an employee towards the organisation. Engagement gives organisations the tools to provide the kind of workplaces that attract, retain, and motivate their changing workforce (O'Bryne, 2013). There is a lot that may still be researched on studies based on employee engagement since most of these studies like the one from Rutishauer and Sender (2019) show that engaged employees demonstrated a high job satisfaction and a low turnover, even though several factors may influence it. The focus of such a study was to show that interaction between team members can be a source of employee engagement making it important for the current research study to take place since team interactions have been lessened by the corona pandemic (Lee, 2020).

Mani and Mishra (2020) have also contributed immensely to the topic of employee engagement during this crisis time of covid and how HR managers need to consider its importance when it comes to Human Resource Practices. According to them, employee morale tends to be low during a time of crisis and thus becomes the first thing to be affected in such situations, motivation of employees is thus important and needs to be the last thing an employee may lose. It is thus important that HR managers use strategic frameworks to evaluate their interventions to enhance the teams' morale. This study proposed a five-lever framework called "GREAT" that expands to growth, renewal, enabling, aspirational, and transparency levers. All these levers on their own and used in conjunction with other levers have been shown to increase employee morale and motivation. The GREAT framework gives an additional lens for HR practitioners to evaluate their employee engagement programs using non-monetary variables since most organizations might be struggling financially during this crisis time of Covid-19.

3.2. MOTIVATION THEORY

Two of the most popular models of motivation are Maslow's Hierarchy of Needs and Herzberg's two-factor model. Both are widely accepted, and the most recent research builds on the ideas presented in these two models. According to Maslow, you would not be able to motivate someone with positive feedback if their basic physiological needs are not met. This makes sense if you apply it to the workplace. If someone does not get paid enough to afford them a good chance of living, he or she is not going to care too much about a title given to them at work. Herzberg suggested that once the hygiene factors were met, employers should focus on recognizing the achievements of the employee and providing opportunities to learn and grow. Being motivated at your workplace motivates an individual to achieve the goal of

meeting the needs or achieving balance (Wiradendi, Supriyati, and Purwana, 2019). This links directly to employee engagement as engaged employees are those who will do their job willingly and do so with the view that they belong to the institution and the achievement of goals of values of the organisation is important to them as well, only motivated people will work willingly without being forced into completing their allocated tasks.

Employee engagement may or may not be aligned with employee job satisfaction, as engagement is tied to employees' connection and commitment to their work and their organization. An employee may have intrinsic or extrinsic motivation. Intrinsic motivation comes from within, while extrinsic motivation arises from external factors. When you are intrinsically motivated, you engage in an activity because you enjoy it and get personal satisfaction from doing it. When you are extrinsically motivated, you do something to gain an external reward. For us to say an employee is engaged in his/her work we talk about intrinsic motivation, employee's ability to be creative in their given task can mediate the relationship between intrinsic motivation and employee engagement, and the relationship between intrinsic motivation and creativity can be moderated by the psychological detachment which is the ability to mentally detach or remove yourself from work and not think about job-related issues (Rogelberg, 2017). Human Resource Management needs to have strategies in place to help the workforce with coping skills ready to adjust to situations that may alter the work environment. The effect of employee engagement in the workplace is very crucial for any organisation or leaders within an organisation if they want their organisations to flourish and to be successful. Improving employee engagement strategies increases the level of engagement and productivity and leads to the achievement of the goals and objectives of the corporation (Alagaraja and Shuck, 2015). Holton and Dent (2017) also indicated in their study that employees are not only motivated financially but also through intrinsic motivation bringing the importance of having the right strategies as well as policies in place to the fore.

3.3. SIGNIFICANCE OF EMPLOYEE ENGAGEMENT

The concept of employee engagement has attracted the interest of many scholars and practitioners in recent years. Engagement has been shown to correlate highly with employee performance and psychological state, as well as with organizational outcomes such as turnover and financial performance. (Carter, Nesbit, Badhamb, Parkerc and Sungd, 2018). A study by Shen and Jiang (2019) has also proven that the Employee engagement process is an active agent that contributes to not only organisational success and employee well-being but also eventually to a sustainable societal environment. If an organisation lacks employee engagement it faces the possibility of losing a productive employee, due to a lack of motivation. It also risks having unengaged employees who are likely going to be unproductive which will, in turn, result in creating a financial or psychological drain on the organisation itself as well as other employees (Segalla and Denisi, 2019). Segalla and Denisi (2019) highlight the importance of understanding the conditions for creating and maintaining engagement and voluntary turnover. The study states that employee engagement is an indication that people who work commit to engaging in labour for their organisation.

Engagement is a central task for public relations practitioners (Jelen-Sanchez, 2017), providing an opportunity for organizations to be more aware of embedded power dynamics and in the process, shift toward a co-creational approach, where audiences are treated as having intrinsic value (Botan, 2018). The co-creational approach upholds an internal environment that values every member of an organization and encourages all audiences to contribute to the meaning-making process (Botan and Taylor, 2004). Meaning creation then becomes the centre of all strategic communication practices in public relations (Taylor, 2018). Adekoya, Jimoh and Olajide (2019) have shown that employee engagement and individual well-being have a significant effect on efficiency and effectiveness which has a strong ability to enhance the organisation's performance. It is through this study that the importance that top management within organizations should keep in mind employee engagement's various

drivers such as empowering the employees, providing full information, and support from the top management, aligning efforts with strategy while planning to engage their employees to ensure efficiency and improved performance in their organisation as well as communication within the organisations and that the focus thereof should be on engaging employees, individual well-being, empowering employees, rewards, and recognition and building a bond between leaders and employees as strategic objectives. Encouraging proper employee communication can build a strong bond between your company and your employees. Employees who are engaged in their work are more likely to be motivated and remain committed to their employer, leading to achieving more business goals and helping to drive the organization forward (Brook, 2019).

3.4. ANTECEDENTS OF EMPLOYEE ENGAGEMENT WITHIN AN ORGANISATION

3.4.1. Rewards and Recognition

Organisations have always used rewards and recognition to motivate their employees and demonstrate how much they are appreciated. Rewards and recognition may be defined as monetary or non-monetary forms and can be given for individual or team effort. Rewards and recognition have many uses, but in general, they help shape employee behaviour and work ethic, allow employees to share in the benefits of their work, as well as make employees feel like an integral part of the company. According to Akinyi (2021), it has been suggested that rewards and recognition at the workplace play a great role in increasing work performance within an organization, which also proves that employee engagement is on the rise as has scientifically been proven in other studies such as by Motyka (2018) that there is a great association between work engagement and various performance categories. To engage their employees more leaders within an organisation need to implement incentives since by rewarding and recognising your employees you are directly impacting their engagement in their work and influencing their performance as well. Opportunities for employees to express their issues and matters that trouble or frustrate them fosters competency and recognition so leaders need to recognise and give such (Osbourn and Harmound, 2017).

From a study by Antony (2018) performance management is an ongoing process where the manager/supervisor and employee work together to plan, monitor, and review an employee's work objectives or goals and overall contribution to the organization by giving rewards to those who excel in their performance at work might change the views of other and motivates them to also do well in their allocated jobs as well as enhance a positive work culture. Management within an organisation may also gain a lot through the understanding of various dimensions of engagement by enabling them to determine the focus of the performance management system within the organization.

3.4.2. Two-way Communication

Two-way communication is viewed as a bilateral attempt or an endeavour where the performance and interpretation of messages take place in creating effective messages through participants such as sender and receiver in units that are part of a particular organization. Employee engagement can be defined as the degree to which people are recognised from their workplaces, actively involved in, and consider their achievements as significant and closely related to the achievement of organisational goals and objectives, thus creating a conduit for self-esteem in the long run. These two components have a scientifically proven relationship where one component has an effect over the other such as in a study done by Prabasari, Martini, and Suardika (2018) which envisaged that communication has a positive and significant relationship and effect on employee performance. This, therefore, indicates that the better the employee's communication, the higher the employee's performance. The organisations that work toward establishing leaders and managers who are effective

communicators for driving engagement can expect to have more highly engaged employees, with higher job retention rates as well as the attraction of new employees (Srivastava, 2018). Leaders need to engage in open and equal communication by giving feedback as well as by encouraging communication between employees themselves. This is done to increase dedication to the organisation as well as make employees more enthusiastic and engaged at work (Spolarjic and Vercic, 2021). It is of great importance that employees participate in decision-making so that they can also feel that their opinions matter and channels of communication are created to overcome obstacles (Ndungu, 2017). It is thus important that communication between employer and employee is prioritised if employee engagement is to be increased within an organisation because, according to Lin, Liu, and Huang (2021) employee engagement is an outcome of communication.

3.4.3. Employee Development

Employee development can be described as an organisation that seeks to provide better opportunities to its employees. It is primarily aimed at investing in them through the expansion of the employees' knowledge and skills to ensure that they will function effectively in their jobs. The types of employee development programs include formal education, job experiences, professional relationships, and assessment of personality, skills, and abilities that help employees grow professionally. Appropriate training is required for various needs such as pertinent problem-solving, performance inducements, and continuous learning and development of human resources (Tabiu and Nura, 2013). It is thus important for an organisation to ensure that its employees are competitive with the outside world to increase employee engagement within the organisation. This has been proven right by Saks (2019) as they state within their study that skill variety is one of the main job characteristics that predict job engagement amongst your employees and managers who give chances to employees to train and give them all the necessary support and opportunities regarding career development efforts, help foster employee development and drive employee engagement (Imandin, Bischoff and Botha, 2014).

4. RESEARCH DESIGN

4.1. RESEARCH APPROACH

An exploratory research design is followed as it helped with identifying boundaries as well as identification of factors relevant to the research. This type of research design allows flexibility when it comes to the collection of data since the researcher can ask questions that are not listed in the guide but may follow their instinct, increasing the researcher's knowledge of the subject matter (Stevens, Loudon, Cole and Wrenn, 2012). A Qualitative study was followed as it allows researchers to study things in their natural settings and attempt to make sense of or interpret phenomena in terms of the meanings people bring to them (Ofiazoglu, 2017; Kakulu, 2014) making it the best choice for the study.

4.2. RESEARCH METHODS

4.2.1. Sample

The study is based at a local Municipality in Gauteng and all their employees form part of the population from which a sample representative of them will be selected. A representative sample of 10 individuals working at the municipality was selected as they were representative enough of those employed under the Human Resource Department at a managerial level since they were the right candidates to answer the question on Employee engagement because of their knowledge of policies and applications at work. The sample size should be large enough to sufficiently describe the phenomenon of interest and address the research question at hand. A large sample size risks having repetitive data. The goal of this qualitative research is to ensure that the study is adequately designed to answer the research question.

4.2.2. Data Collection

A semi-structured interview will be used for the research purpose of this study, as it allows the researcher the flexibility to ask a question that is not noted in the interview guide in so doing giving a broader perspective to the research questions. In this research, a predetermined open-ended question based on the study's outcomes will be asked to ensure that the research question is asked. All the outcomes are accommodated in the questions asked from the questionnaire. During the research process, the participants were able to decide on the venue for their interviews. As a result, each participant was interviewed at a venue chosen by her and at a time that was convenient to her. The participants were interviewed either at their homes or at their places of work. Most of the participants indicated a preference for the interviews to take place at their place of work. The interviews were conducted by the researcher and were all conducted in English. Although the participant's home language was not English their command of the language is good due to their education and professional status. Conducting the interviews in English allowed the researcher to transcribe the interviews as presented by the participants without translating the interviews. All participants were interviewed by the researcher, and all interviews were recorded on an audiotape. The research instrument comprises five sections with section A used to collect the biographical information of the participants which will help in giving better details into the participant's life details. Sections B to E will be used to answer the questions or the objectives of the study as they are aligned into giving clearance and information relating to engagement strategies used at the municipality, perception of rewards and recognition by employees, perception of the role of communication on employee engagement as well as the perception of employees on development within the municipality.

4.2.3. Data Analysis

A qualitative study was followed, and thematic analysis was used to analyse data. This is a form of analysis that has the theme as its unit of analysis, and it looks across the data set from many different sources to identify themes. It is an appropriate and powerful method that can be used when seeking to understand a set of experiences, thoughts, or behaviours across a data set (Rautishauser and Sender, 2019). A reflexive thematic analysis was followed since the researcher is aiming at examining the factors that influence a particular process. Themes were used as they are patterned responses derived from data that inform the research questions. Subthemes followed as they also capture and develop one notable specific aspect of one theme but share the central organising concept of that theme (Rautishauer and Sender, 2019). A complete coding of the data was used instead of looking for instances, the researcher went through all data on hand to identify anything that is of relevance in answering the research question within the entire data set. It allows for interpretation of the context associated with the use of the word or phrase. For this study to be trustworthy it is thus important that the researcher indicate that data analysis has been conducted in a precise, consistent, and exhaustive manner through recording, systematizing, and disclosing the methods of analysis with enough detail to enable the reader to determine whether the process is credible (Nowell, Norris, White and Moules, 2017). The researcher began her analysis by going through data as it came and systematically worked through the whole thing with data that is relevant to the research question. A sampling plan to maximise the chance of accessing the level of employee engagement within local governments and municipalities was devised. Interviews were conducted with individuals using open-ended questions, such as "How does communication with leadership affect your sense of autonomy" with probes such as "Can you elaborate further into the concept". All the conducted interviews were audiotaped and transcribed thereafter. Focus was placed on the significance of employee engagement within an organisation by using the different antecedents of employee engagement within an organisation such as reward and recognition, communication, employee development as well as strategies that enhance employee engagement to code throughout the data on hand. All transcripts were transcribed carefully highlighting all texts that described these antecedents. All highlighted texts were coded using these pre-determined categories. All the texts that could

not be coded using these categories were coded with another label that captured the essence of employee engagement within an organisation.

5. ETHICAL CONSIDERATIONS

All participants who have partaken in this study received a consent form to sign indicating that they willingly and voluntarily participated in the study without any expectations from the researcher. A researcher has thus asked for permission to research from the municipal Manager of Training and Development to conduct the research as well as to clear out any issues that may need clarification by different managers of departments within the municipality, there is no ethical committee at the Municipality and permission given by the manager and direction given by the senior training manager served as guidelines on what is expected by Municipality from the researcher. Several ethical considerations were considered to ensure that the study was conducted appropriately (Babbie and Mouton, 2001). To comply with ethical considerations in conducting research all participants provided written consent to be interviewed and to participate in the research. The participants therefore willingly participated in the study after they were approached by the researcher (Leedy, 2001; Neuman, 2000), and the research purpose and process were explained to them. The purpose of the research was explained to the participants and the participants were told that should they wish to withdraw at any point during the interview they could do so. Permission to record the interview was also obtained from the participants and none of the participants had difficulties with the tape recording of the interviews. It was further explained to the participants that their information would remain confidential and that the specific content of individual interviews would only be discussed with the supervisor. The supervisor and the participants were unknown to each other. In the final report, the identity of the participants was removed, and all participants were labelled as participant 1 up to participant 10.

6. RESULTS

Different antecedents of employee engagement within an organisation were used and the focus was given to reward and recognition, communication, employee development as well as strategies that enhance employee engagement to code through the data on hand. All transcripts were transcribed carefully highlighting all texts that described these antecedents. All highlighted texts were coded using these pre-determined categories. All the texts that could not be coded using these categories were coded with another label that captured the essence of employee engagement within an organisation. The extent to which the data was supportive of employee engagement and its antecedent was compared.

The first theme employee engagement strategies identify the strategies if any at the municipality that is being used to foster employee engagement and the context in which employees have experienced such strategies. The second theme which is the level of recognition in this municipality is assessed or checked through rewards and recognition programs. The third theme is the communication level at the municipality, does it exist, do employees feel heard, and is there any actions taken if ever they put their word forward within their organisation do, they know exactly what is going on or all they know is hearsay. The fourth theme we focus on is employee development, what opportunities are available for employees to feel needed and important within the organisation, and what means the organisation takes to ensure that employees' goals are aligned with the organisational goal of growth. Lastly, the focus is on human resource practices used by the municipality, is it able to uplift the employee and motivate them enough for them to feel like they add value to the organisation thereby increasing the level of employee engagement or not?

Employee engagement strategies at the studied municipality, as experienced by employees, are not reflected that well in terms of rewards and are mainly internally motivated because most of the employees have emphasised that their happiness in the job does not come from the employer being involved in what they do but it comes from them being happy with what they do and appreciating the opportunity to work or to do a job related to their studies and

thereby giving back in terms of the profession they studied for. Everyone in the municipality is happy with the salary that they are receiving because they view it as market-related as confirmed by respondents saying:

- “We visited other municipalities to benchmark our salaries”
- “We are well paid”.
- “I am waiting for my pension, I have nowhere to go, and I am paid well”.
- “I am staying because I have served the municipality for a long time, and pay is good”

Employees feel that they are not professionally recognised since they are in advisory positions but even, so their opinions are not recognised, and it seems like their opinions do not matter as is the matter with some respondents whose statement was:

- “I've given opinions as to how we can improve this situation and managers do listen but now the issue is the implementation”
- “Climate is not conducive; my recommendations fell on deaf ears”
- “...they can't be listening without implementing”.

There is a problem in terms of communication especially getting feedback on things discussed with supervisors, and feedback in terms of when projects or deadlines are to be reached. The most representative statements highlighting this are:

- “This is a political environment and then there's nothing that we can do about it”
- “... and at times when you are busy trying to make sure that all your things are coming together you get interrupted because everybody wants things to happen the way they want them to...”
- “There is a lot of red tape and political interference”

There seems to also be a problem when it comes to levels below management levels since certain information which affects all employees is directly communicated to managers only who will then have to pass it to subordinates, causing a breakdown in communication as seen from responses from the respondents below:

- “If I come from management meetings, I give them feedback”
- “Communication is not good and because of financial struggles there are no resources

Employees feel that information is not shared accordingly, and things are not done openly but some are just done with political motivation as some of the respondents have reported in the statements below:

- “I feel like there are things that they are hiding, or they don't want to get involved”
- “I was advising from a professional point of view having researched the matter but my recommendations which I have done now about four times trying to better them have fallen on deaf ears”.
- “You see things happening without your knowledge but in your department, a lot of things are budgeted for but never get repaired”.

A lot of work needs to be done when it comes to the development of employees as most employees feel that there are no proper channels when it comes to their development. A few opportunities are coming up or being given but these are also not properly communicated. This statement can be validated by statements from employees such as:

- “There is a work skills plan that must be done annually, a skills audit, you submit those things annually it's the implementation that fails us”
- “When last did I go to a relevant workshop for the empowerment of my career?”
- “When last did I go to training?”
- “There is no performance management system in place”

- “There is not much recognition unless you apply for higher positions”.

Most of the employees want their development to be based on their professional growth they want to keep up with their trades but feel it is not possible because no alignment is made in terms of their professional growth within the organization. Human resource practices at this municipality are only on paper since there are no strategies in place when it comes to covering important aspects of human resources such as development, rewards and recognition, communication, and employee development. Developmental strategies such as skills audits need to be in place for everyone to be accountable for their jobs. Employees need to know that there are certain systems in place when it comes to human resource practice since it is the foundation of happy and engaged employees. Employees want to see accountability in all sectors and for things to not just happen but for protocols to be followed, and for the necessary tools and resources to be available so they can be able to complete their jobs.

7. DISCUSSION

The study has been able to answer the question asked by the study through the data that was collected with interviews conducted at this municipality. Several things were identified at the Municipality which indicate poor employee engagement, and these will be discussed.

These concepts included the lack of rewards and recognition at the municipality, employees feel like they must do what they are getting paid for and go home. Employee strategies used at the Municipality are rewards and recognition which is not implemented yet as it was done previously before the municipality had financial problems, there are no strategies in place in terms of performance management especially for the lower positions within the municipality. There seem to be communication breakdowns especially when it comes to resources and tools needed to complete tasks within the municipality thereby bringing frustration to employees as they now need to be innovators when it comes to the completion of their job. The municipality must be aware of all the causes of disengagement from their employees since employee engagement touches almost all parts of human resource management factors if certain facets of human resources are not addressed appropriately, employees fail to fully engage themselves in their job in the response to such kind of mismanagement (Markos and Sridevi, 2010). Most of these managers are happy because their salaries and pension benefits are good, there is also a feeling of redundancy because they feel that they are settled in their positions since they have held them for more years and because of age. There is no recognition as such because the only way you can get a promotion is if you were to apply for another position of a higher salary scale than you. In terms of development, employees feel that there is not enough done to ensure that employees are developed according to the requirements of their professions. Most employees feel irrelevant in the profession that they are serving as they are not competitive compared to their counterparts in the private sector or who practices privately. Employees want to be shown dedication by their employer through clear values and less political intervention as well as shared power so that agreements can be reached openly and communicated well in advance. Employees feel that there is a lot of red tape that they must go through in terms of the availability of resources that are supposed to help them in reaching goals as expected by their employer. They feel that they are not professionally recognised as well as professionally developed and supported as they have lost contact with current changes happening within their different professions which could, in the end, benefit the organisation profusely in terms of return on investment. A reward program system will thus be beneficial for the municipality as it will help them in identifying high-performing employees and engaging with them, in terms of listening to their proposal on how they get to where they are and getting suggestions on what the organisation can do in terms of improving where they need to.

The municipality must consider that all these factors are antecedents to employee engagement and for an employee to deliver and do their jobs well their levels of employee engagement need to be high. From this study, it is evident that the level of engagement of

these workers is not good enough to produce the expected work and it is thus important that they correct themselves with regards to rewarding and recognising their employees, professional development as well as trying and change the way things are communicated as well as eliminate barriers of communication within the municipality.

8. LIMITATIONS AND RECOMMENDATIONS

The study will also work well if it can explore a different context by the inclusion of more individuals within the sector. This can be done through a qualitative study which was not possible to do due to the limitations of COVID outbreaks in our country. A follow-up study on how municipalities can curb political influence on Human Resource practices and management may also be explored. It can also be recommended that a study on how different professions is supported in terms of staying accredited as well as staying ahead of professional developments may also be undertaken.

9. CONCLUSION

Studies and previous research have proven that employees value communication between them and management as well as the knowledge that they have valued through acknowledgment and appreciation as well as being given opportunities to grow and thus increasing the level of employee engagement. People need to be motivated both intrinsically as well as extrinsically as research has proven that both parties need to feel a sense of stability and appreciation, and these can be instilled through the development of a strong performance management system that holds managers and employees accountable for the behavior they bring to the workplace.

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Work engagement among frontline employees (FLEs): antecedents and consequences

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ABSTRACT

In this paper, we examine antecedents and consequences of work engagement (WE). High performance work practices (HPWPs) as manifested by training (TR), empowerment (EMP) and rewards (RW) were considered as antecedents with, creative performance (CRP), and turnover intention (TI) as job outcomes. Data for the study were obtained from 405 frontline employees (FLEs) (n = 405) in four-star and five-star hotels in Kenya. Proposed relationships were assessed using Partial Least Squares-Structural Equation Modelling (PLS-SEM). Results indicated that HPWPs were significant antecedents of WE with TI as a significant outcome. The relationship between WE and CRP was found to be non-significant. Further results from post hoc analysis showed WE as a partial mediator of the effects of HPWPs on CRP and TI. The study expands current knowledge on WE by examining its antecedents and consequences among FLEs in Sub-Saharan Africa. The study also evidences the use of a novel mediation analysis technique.

Keywords: High-performance work practices, work engagement, turnover intention, creative performance, Partial Least Squares-Structural Equation Modelling (PLS-SEM).

INTRODUCTION

In the current era of rapid technological advancements, the hotel industry is experiencing heightened competition, especially concerning talent acquisition and retention (Guan, Yeh, Chiang and Huan, 2020). Within this labour-intensive industry, hotel managers face the challenge of effectively managing diverse workforces with varying skill sets, while also dealing with evolving job demands and elevated employee expectations (Huertas-Valdivia, Montes and Moreno, 2018). Employees in this industry often encounter a range of difficulties, including job stress, inadequate compensation, emotional exhaustion, and a lack of recognition (Huertas-Valdivia et al., 2018). Given the industry's strong focus on service as a primary offering, creating work environments that cultivate passion and a sense of purpose among employees has become crucial (Huertas-Valdivia et al., 2018). This is particularly relevant for Frontline Employees (FLEs), who engage in constant face-to-face interactions with customers.

FLEs play a vital role in connecting the operational goals of an organization with its customers, ultimately contributing to positive service experiences and customer satisfaction (Guan et al., 2020). Consequently, the retention of a skilled and engaged FLEs has become a critical concern for managers in the hotel industry (Park, Johnson and Chaudhuri, 2019). Despite their unique position, FLEs are reported to show the lowest levels of engagement compared to non-FLEs (Karatepe, Yavas, Babakus and Deiz, 2018). This is not surprising as FLEs in the industry work in an environment rife with high physical and emotional demands (Huertas-Valdivia et al. 2018).

In service organizations, work engagement (WE) is acknowledged as a valuable positive psychological factor that can significantly impact behavioural and performance outcomes (HuertasValdivia et al., 2018). Engaged employees are known to experience higher levels of job satisfaction, organizational commitment, job performance, reduced absenteeism, lower turnover intentions, and improved physical health and well-being (Guan et al., 2020; Karatepe and Olugabde, 2016). Consequently, addressing the engagement gap has become a crucial managerial concern with profound implications for employees and businesses, particularly in service-oriented organizations (Karatepe et al., 2018).

LITERATURE REVIEW AND PROBLEM INVESTIGATED

Prior research has extensively emphasized the advantages of work engagement (WE) (Karadas and

Karatepe, 2019; Karatepe and Olugbade, 2016; Karatepe, 2013b). However, the level of WE among Frontline Employees (FLEs) in the hotel industry has received relatively less attention. This is particularly notable in Africa, where the industry employs a significant proportion of the young population (United Nations Development Program (United Nations Development Program, 2017). Considering that service-oriented industries, such as hotels, heavily rely on engaged employees (Rabiul and Yean, 2021), there is a need for empirical research to investigate the antecedents and consequences of WE, especially within the context of Sub-Saharan Africa, where essential questions regarding the determinants and outcomes of WE remain unanswered (Karatepe and Olugbade, 2016).

Accordingly, the purpose of the study was to investigate antecedents and consequences of WE. That is, high-performance work practices (HPWPs) as a set of potential antecedents and creative performance (CRP) and turnover intentions (TI) as potential consequences, among FLEs in the context of a Sub-Saharan African country, Kenya. Using the motivational pathway of the JobDemands-Resources (JD-R) model and Social Exchange Theory (SET) as theoretical underpinnings, a research model was developed to empirically examine proposed relationships using data elicited from FLEs working full-time in four-star and five-star hotels.

RESEARCH QUESTIONS

To address the knowledge and evidence gaps identified, the following research questions are formulated:

1. To what extent do high-performance work practices impact work engagement levels among frontline employees?
2. To what extent do work engagement levels among frontline employees affect creative performance and turnover intention?

RESEARCH OBJECTIVES

To answer the formulated research questions; the following study objectives are specified:

1. Review literature to identify high-performance work practices.
2. Test the effects of the selected high-performance work practices on work engagement.
3. Test the effects of work engagement on the job outcomes creative performance and turnover intention.

RELEVANCE AND SIGNIFICANCE OF EMPIRICAL STUDY

This study makes several significant contributions to the existing literature. Firstly, it addresses a research gap characterized by limited empirical evidence regarding the antecedents and outcomes of work engagement (WE) specifically in frontline service roles within the hotel industry (Mary, Yunji and Alafeshat, 2019; Karatepe and Olugbade, 2016). Secondly, the study focuses on high-performance work practices (HPWPs) as potential antecedents that enhance engagement (Karatepe et al., 2018). These practices are known to strengthen WE by improving employees' skills, knowledge, and abilities (Karatepe et al., 2018). Despite the recognized role of HPWPs in enhancing employee performance, there is still a need for empirical research to elucidate the mechanisms linking HPWPs to behavioural and performance outcomes (Karadas and Karatepe, 2019; Karatepe and Olugbade, 2016). Therefore, this study responds to a research call to investigate the "black-box" mechanism that connects HPWPs and job outcomes (Karadas and Karatepe, 2019).

Lastly, it is worth noting that most studies exploring the antecedents and outcomes of WE have predominantly focused on Western economies (Saks, 2019; Karatepe and Olugbade, 2016). Consequently, there is a need for additional research to identify the drivers of WE and its subsequent outcomes within the context of Sub-Saharan African countries. This study was conducted in Kenya, a developing country located in the Sub-Saharan African region, thereby contributing to filling this research gap.

THEORETICAL FRAMEWORK

SET and the motivational pathway of the JD-R model constitute the theoretical frameworks for the present study. SET is built on the premise that organizations and employees engage in reciprocal exchanges, leading to trusting, loyal, and mutually committed relationships (Cropanzano and Mitchell, 2005). When organizations establish social exchange relationships by providing economic and socioeconomic benefits, employees are likely to reciprocate positively by displaying higher WE levels. Specifically, when organizations offer socio-economic benefits (job resources) such as HPWPs, FLEs are more likely to feel obligated to increase their engagement levels, resulting in positive job outcomes (Karatepe and Olugbade, 2016).

The motivational pathway in the JD-R model also provides valuable insights into the motivational aspects of job resources such as HPWPs (Bakker and Demerouti, 2017). According to the JD-R model, job resources are instrumental in managing job demands (such as workload, stress, mental exhaustion) and promoting employees' well-being (Bakker and Demerouti, 2017). Job resources initiate a motivational process that enables employees to achieve their work goals, alleviate job demands, foster their growth and development, increase their willingness to exert more effort in their tasks and enhance their levels of work engagement (Bakker and Demerouti, 2017). HPWPs, have been reported as important job resources in frontline service jobs (Karatepe and Olugbade, 2016). As such, through the motivational process, HPWPs as job resources, can influence the motivational state of work engagement (Aaree, Walumbwa, Gachunga, and Hartnell, 2016) and subsequently lead to employees displaying favourable work outcomes (Bakker and Demerouti, 2017).

HIGH PERFORMANCE WORK PRACTICES AND WORK ENGAGEMENT

High Performance Work Practices (HPWPs) encompass a set of interconnected work practices aimed at enhancing individual performance (Ogbonnaya and Valizade, 2018). Aligned with the principles of the Ability-Motivation-Opportunities (AMO) model, HPWPs influence employees' abilities, motivations, and opportunities to contribute effectively within the organization. By implementing HPWPs, organizations send a positive signal to employees, indicating that they are valued, which in turn influences their attitudes (Ogbonnaya and

Valizade, 2018). Although various HPWPs enhance employees' skill and motivation, this study focused on three key indicators of HPWPs in the context of frontline service jobs: training (TR), empowerment (EMP), and rewards (RW). These indicators have been recognized as crucial elements of HPWPs particularly in frontline jobs (Karatepe et al., 2018; Karatepe, Baradarani, Olya, Ilkhanizadeh and Raoofi, 2014).

Training plays a crucial role in improving employee performance by bridging the gap between current and desired performance levels (Karatepe, 2013b). It enhances employees' capabilities by equipping them with the necessary knowledge and skills to perform their duties in line with organizational standards (Karadas and Karatepe, 2019). Continuous training is essential, as it develops employees' self-efficacy, replaces outdated practices with more effective ones, and contributes to superior job performance (Karadas and Karatepe, 2019). Training also motivates employees by instilling confidence in their ability to meet organizational performance standards. Insufficient training can lead to a gap in required skills, resulting in higher dissatisfaction levels among employees (Anitha, 2014), particularly FLEs. While training is essential, Karadas and Karatepe (2019) argue that organizational training of FLEs without empowerment will not lead to quality service delivery. Therefore, empowerment should accompany training to achieve the desired outcomes.

According to Karatepe et al. (2018), empowerment provides FLEs with the authority to make decisions related to customers, aiming to meet their expectations. This means that empowered FLEs have the autonomy to address customer needs, handle service failures, and customize the service delivery process. Such empowerment enables FLEs to take proactive measures in providing satisfactory solutions and enhancing the overall customer experience (Karadas & Karatepe, 2019). In addition, empowerment can foster a sense of ownership and accountability among FLEs. This sense of ownership motivates FLEs to take personal initiative in resolving customer issues promptly and effectively. As a result, FLEs become more responsive and adaptive to customer demands, ultimately leading to improved customer satisfaction and loyalty (Karatepe et al., 2018). Notably empowerment has been shown to only yield the desirable work outcomes if combined with the appropriate training and rewards programs (Karatepe and Vatankhah, 2014; Karatepe, 2013b).

For FLEs to effectively exercise their service-delivery mandate, rewards must be instituted to recognize their efforts. Rewards and recognition are essential in motivating employees to exhibit positive behaviours and attitudes (Karatepe and Vatankhah, 2014). As such, when employees perceive that managers recognize and reward their efforts, their feelings towards their job and organization are strengthened (Karatepe et al., 2014). Extant literature demonstrates rewards as a powerful motivational tool that drives employee engagement, job satisfaction, job embeddedness, job and service recovery performance, and reduced turnover intentions (Karatepe and Vatankhah, 2014a; Karatepe et al., 2014; Karatepe, 2013b). To effectively leverage reward policies among FLEs, the simultaneous implementation of training and empowerment is necessary (Karatepe et al., 2014; Karatepe, 2013b). The combination of training, empowerment, and rewards has a significant impact on employee performance (Karadas and Karatepe, 2019).

In consonance with the SET and motivational pathway of the JD-R model, FLEs operating in a work environment where HPWPs as manifested by training, empowerment, and rewards are available, are likely to experience positive emotions and reciprocate with high WE levels (Ogbonnaya and Valizade, 2018). Therefore, as per the foregoing discussion, the following hypothesis is proposed:

Hypothesis 1 (H1): HPWPs as manifested by training, empowerment, and rewards, are positively related to WE.

WORK ENGAGEMENT AND THE JOB OUTCOMES CREATIVE PERFORMANCE (CRP) AND TURNOVER INTENTION (TI)

The concept of work engagement (WE) is commonly defined as a "positive and fulfilling work-related state of mind characterized by vigor, dedication, and absorption" (Schaufeli, Bakker and Salanova 2002: 74). This definition emphasizes that WE encompasses an employee's energetic disposition and willingness to invest effort in their work (vigor), their intentional and thoughtful pursuit of work (dedication), and their deep involvement in their tasks (absorption). In essence, WE reflects the extent to which employees psychologically connect with their work, involving a holistic connection that encompasses their physical, cognitive, and emotional engagement with their roles (Kahn, 1990). Engaged employees not only experience positive emotions and good health but also possess the ability to proactively shape their own job and personal resources while transferring their engagement to others (Bakker and Demerouti, 2017).

Work engagement (WE) holds significant importance not only for employees but also for organizations as a desirable condition. Research by Bakker, Demerouti, and Sanz-Vergel (2014) shows that engaged employees demonstrate higher levels of activity and experience positive emotions compared to their disengaged counterparts. The existing literature highlights the strong associations of WE with various outcomes (Karatepe and Olugbade, 2016; Karatepe, 2013b) underscoring its critical role in determining positive consequences for individuals and organizations (Khoreva and van Zalk, 2016). Among FLEs, WE is reported to have a positive effect on service recovery performance, in-role performance, creative performance, job performance, extra-role customer service, and reduced intentions to quit (Karadas and Karatepe, 2019; Saks, 2019). Such positive outcomes are likely to be attributed to the positive work-related experiences and mental states of engaged employees, which foster positive emotions and behaviours that drive successful results.

CRP, a performance outcome, refers to employees use of new ideas and display of novel behavior in managing customer demands and problems (Karatepe, Ozturk and Kim, 2019). It is regarded as an essential job outcome in frontline service jobs. FLEs possess an important creative potential due to their boundary spanning roles, providing them the unique opportunity to customize service delivery to complement customers' requirements and expectations (Karatepe and Olugbade, 2016; Karatepe, 2013b). Although CRP is important for quality service delivery, empirical studies on the concept have largely been neglected in the hotel industry (Karatepe et al., 2014). Empirical studies on the relationship between WE and CRP have slowly gained prominence with prior studies evidencing a positive WECRP relationship (Talebzadeh and Karatepe, 2020; Karadas and Karatepe, 2019).

TI as a behavioural outcome continues to be a major challenge in the industry. TI refers to "the last in a sequence of withdrawal steps taken, characterized by thoughts of quitting and the intent to search for alternative employment" (Tett and Meyer, 1993: 262). Extant literature shows WE as a potential mitigating factor for employees' propensity to leave an organization (Karadas and Karatepe, 2019;

Saks, 2019). In the service-oriented industry, FLEs are more likely to meet and exceed customers' needs when they are energetic, inspired, and fully involved in their work. As such, engaged FLEs are likely to exhibit reduced intentions to leave (Karatepe et al., 2018). This assertion can be supported by empirical studies conducted among customer-contact employees. For instance, a study by Karatepe (2013a) among FLEs in the Iranian hotel industry found that FLEs who were engaged were less inclined to leave their organizations. This can be attributed to employees' positive work-related state of mind (Karatepe et al., 2018), making it difficult for them to separate from their work given their invested effort, energy, and involvement.

Against this backdrop, we expect that highly engaged FLEs are willing to generate new ideas and be less inclined to leave their organizations due to their positive work-related states. Therefore, consequent to the foregoing discussion, we posit the following hypotheses:

Hypothesis 2a (H2a): Work engagement is positively related to creative performance.

Hypothesis 2b (H2b): Work engagement is negatively related to turnover intention.

METHOD, PARTICIPANTS AND PROCEDURE

For this study, data were collected from a sample of full-time FLEs working in four-star and five-star hotels located in Nairobi and Mombasa, Kenya. Nairobi, the capital city, and Mombasa, a major tourist hub, are home to numerous hotels. The FLEs in this study consisted of front desk staff, stewards, bell attendants, door attendants, guest relations representatives, spa attendants, housekeeping staff, concierge staff, and hotel and conference sales executives. To identify the hotels for the study, the researchers obtained a list of four-star and five-star establishments from the Tourism Regulatory Authority (TRA) of Kenya, as well as Kenya Gazette notifications. Permission to collect data was granted by a total of 16 hotels, comprising 7 five-star hotels and 6 four-star hotels in Nairobi County, along with 3 four-star hotels in Mombasa County.

485 questionnaires were distributed, and 435 acceptable responses were obtained, resulting in a response rate of 89.7%. After screening the data for missing information and outliers, 30 surveys were excluded, leading to a final sample of 405 respondents. The sample consisted of 47.2% male and

52.1% female participants. The majority of respondents were married (53.8%). In terms of education, 63.7% held a professional diploma, 13.6% had completed secondary school, and the remaining 22.7% had obtained graduate or post-graduate degrees. Furthermore, 47.4% of respondents had worked in their respective organizations for four or more years, followed by 33.8% with tenures of one to three years. The remaining 17.8% had tenures of less than a year.

Measures

To operationalize the variables, pre-validated and established single and multiple-item scale measures were employed. Specifically, TR and RW were measured using six-item and five-item scales (Boshoff and Allen, 2000), respectively. A five-item scale adapted from Hayes (1994) was used to measure EMP. WE was measured using the seventeen item Utrecht Work Engagement Scale (UWES)

(Schaufeli et al., 2002), comprising vigour (VI), dedication (DE), and absorption (ABS). Specifically, VI and ABS were measured using six-item scales. DE was measured using a five-item scale (Schaufeli, Bakker and Salanova, 2006). Six-items adapted from Wang and Netemeyer (2004) were used to measure CRP, and TI was measured using a three-item scale adapted from Boshoff and Allen (2000). Responses to scale-items used to measure HPWPs indicators, WE, and TI, were elicited using a 5-point Likert scale ranging from 5 (strongly agree) to 1 (strongly disagree) (Bettencourt and Brown, 1997; Boshoff and Allen, 2000; Karatepe, 2013b; Karatepe and Olugbade, 2016). Responses to CRP were obtained using a 5-point Likert scale ranging from 5 (almost always) to 1 (never) (Karatepe and Olugbade, 2016). Additionally, control variables such as gender, age, marital status, education, and organizational tenure were also included in the questionnaire to account for potential confounding effects.

Analysis Strategy

For data analysis, several steps were followed. The measurement model was subjected to Confirmatory Factor Analysis (CFA) for reliability and validity (Fornell and Larcker, 1981).

Subsequently, the structural model was examined to evaluate the significance of the hypothesized relationships (Hair, Hult, Ringle, Sarstedt, 2017). PLS-SEM was used because (1) the study was aimed at predicting endogenous variables (Hair et al., 2017) i.e. WE, CRP and TI, and (2) the research model was complex, as HPWPs was represented as a second-order latent variable.

Post-Hoc Analysis

To test for mediation effects using PLS-SEM analysis with bootstrapping procedures, the two-step approach proposed by Nitzl, Roldan and Cepeda (2016) was applied. This approach first determined the significance and strengths of the indirect effects, followed by examining the significance of the direct effect to determine the type of mediation observed, such as non-mediation (direct-only or no effect), partial mediation (complementary or competitive), or full mediation (indirect-only). SmartPLS (Version 3.2.8) statistical software was used.

RESULTS

Measurement Model Assessment

Before analysing the structural model, the reliability and validity of the measurement model were assessed using Confirmatory Factor Analysis (CFA). To assess the reliability of the measurement scale, composite reliability (pc) was examined. Composite reliability (pc) values were well above the recommended threshold 0.700 (Hair et al., 2017). Convergent validity was confirmed by evaluating the reliability of individual indicator items and Average Variance Extracted (AVE). AVE values for each variable exceeded the threshold of 0.500 (Hair et al., 2017), indicating that the constructs explained more than 50% of the variance. Results are shown in Table 1.

TABLE 1: CONFIRMATORY FACTOR ANALYSIS

Constructs	Cronbach's Alpha (α)	Composite Reliability (CR (pc))	AVE
Training	0.90	0.92	0.66
Empowerment	0.86	0.90	0.64
Rewards	0.92	0.94	0.77
Vigour	0.86	0.90	0.65
Dedication	0.88	0.92	0.73
Absorption	0.76	0.85	0.58
Creative Performance	0.93	0.95	0.75
Turnover Intention	0.88	0.93	0.81

Discriminant validity was also established using the Fornell-Larcker criterion (1981) and HeterotraitMonotrait (HTMT) ratio of correlations (Henseler, Ringle and Sarstedt, 2015). The AVE extracted by each construct was found to exceed the respective squared correlation between the construct and other constructs. The HTMT ratio was used as a more stringent measure to establish discriminant validity (Henseler, Hubona and Ray, 2016). HTMT ratios were below the conservative threshold 0.850

(Henseler et al., 2015). Results as reported in Tables 2 and 3 therefore, affirmed discriminant validity.

TABLE 2: FORNELL – LARCKER CRITERIA OF DISCRIMINANT VALIDITY

Construct	ABS	CRP	DE	EMP	RW	TR	TI	VI
Absorption (ABS)	0.76							
Creative Performance (CRP)	0.26	0.86						
Dedication (DE)	0.55	-0.04	0.86					
Empowerment (EMP)	0.34	-0.01	0.32	0.80				
Rewards (RW)	0.22	0.16	0.28	0.39	0.8			
Training (TR)	0.31	-0.01	0.41	0.43	0.41	0.81		
Turnover Intention (TI)	-0.24	0.06	-0.42	-0.15	-0.36	-0.19	0.90	
Vigour (VI)	0.53	-0.11	0.64	0.22	0.27	0.26	-0.40	0.80
Mean	3.94	3.49	4.31	3.47	3.42	4.20	2.42	4.04
Standard Deviation	0.64	0.84	0.64	0.91	0.99	0.65	1.09	0.69

Notes: Diagonal values (in **bold**) represents the square root of the AVE of each construct

TABLE 3: HETEROTRAIT-MONOTRAIT (HTMT) RATIO OF CORRELATIONS

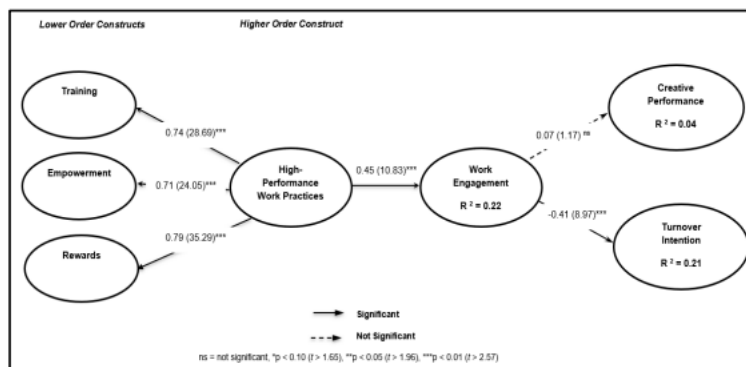
Construct	ABS	CRP	DE	EMP	RW	TR	TI	VI
Absorption (ABS)								
Creative performance (CRP)	0.10							
Dedication (DE)	0.66	0.60						
Empowerment (EMP)	0.40	0.10	0.34					
Rewards (RW)	0.27	0.19	0.31	0.43				
Training (TR)	0.36	0.05	0.46	0.48	0.45			
Turnover Intention (TI)	0.28	0.07	0.47	0.16	0.40	0.20		
Vigour (VI)	0.65	0.12	0.73	0.23	0.30	0.29	0.45	

Notes: Heterotrait-Monotrait (HTMT) Ratio of Correlations; HTMT ratios < **0.85**.

Structural Model Assessment

In order to examine the proposed relationships, path analysis was conducted. The High-Performance Work Practices (HPWPs) construct, represented by TR, EMP, and RW, was modelled as a secondorder construct. Additionally, VI, DE, and ABS were represented as indicators of WE using their average item scores (Schaufeli et al., 2006). Prior to analysis, collinearity within the model was assessed. Tolerance values above 0.200 and VIF values below 5.000 were observed, indicating no concerns regarding collinearity among the predictor constructs (Hair et al., 2017). Second, the significance of the paths (hypothesised relationship) were determined by bootstrap resampling (5000 resamples) to produce the standard errors and t-values. The results of the structural model test can be found summarized in Figure 1.

FIGURE 1: STRUCTURAL PATH MODEL RESULTS.



Note: All indirect effects are significant ($p < 0.05$) based on the PLS-SEM Bootstrapping Procedure. For schematic clarity, the reflective indicators of HPWPs, WE, CRP, and TI are not drawn. Control variables are also omitted to improve readability.

As hypothesised in Hypothesis 1, the effects of HPWPs on WE among FLEs is significant and positive (0.450, $t = 10.642$, $p < 0.01$). Hence Hypothesis 1 is supported. This finding denotes that FLEs working in an environment that provides them with TR, EMP and RW as HPWPs indicators, believe that the organization values their contribution. In response to these HPWPs, FLEs are more enthusiastic, energetic, and involved in their jobs. Further, as proposed in Hypothesis 2a, the relationship between WE and CRP was found to be non-significant (0.066, $t = 1.160$, ns). Thus, Hypothesis 2a is not supported. Thus, engaged FLEs do not seem sufficiently motivated to display CRP behaviours in the workplace, as is expected in frontline service jobs. This finding is unanticipated and inconsistent with results from existing literature (e.g. Karatepe and Olugbade, 2016), where it has been found that WE is significantly linked to CRP among FLEs. Moreover, WE was found to have a negative significant relationship with TI. Therefore, Hypothesis 2b is supported. These findings affirm that engaged FLEs are less likely to leave the organization.

Control variables, gender, and education did not show a significant effect on any variable, while age was observed to have a positive significant association with WE and TI, and negative significant relation with CRP. Marital status was found to affect HPWPs and TI significantly and positively. Tenure was observed to significantly and positively influence WE, and significantly and positively affect CRP.

Post-Hoc Analysis of Work Engagement as a Mediator

Previous research has provided evidence supporting the notion that the availability of job resources plays a crucial role in fostering engagement, leading to positive outcomes (Karatepe and Olugbade, 2016; Karatepe and Vatankhah, 2014; Karatepe, 2013b). As a motivational construct, WE plays a mediating role between HPWPs and behavioural and performance outcomes. SET and the motivational pathway of the JD-R model provide strong theoretical frameworks for these relationships.

According to the perspective of Social Exchange Theory (SET), when employers prioritize the wellbeing of their employees, it fosters a relationship of social exchange that leads to positive outcomes (Cropanzano and Mitchell, 2005). Job resources, such as training opportunities, decision-making autonomy, and rewards when availed by organizations become crucial factors that prompt employees to become more engaged, resulting in favourable work outcomes (Karadas and Karatepe, 2019). Essentially, FLEs who receive such benefits from their organizations are more likely to reciprocate by exhibiting higher levels of work engagement (WE). Furthermore, based on the motivational pathway outlined in the Job Demands-Resources (JD-R) model, the presence of job resources initiates a motivational process that enhances employee WE, ultimately leading to positive work outcomes (Bakker and Demerouti, 2017). FLEs working in an environment with adequate resources are motivated to perform effectively in their work. As a result, these FLEs are more likely to display elevated levels of WE, and, in turn, display valuable job outcomes such as CRP and reduced TI.

Mediation Test

To examine mediation effects, Nitzl et al.'s (2016) two-step approach was used. This procedure involves examining the significance of all the indirect relationships via the mediator WE, and direct relationships. First, by using a bootstrap procedure (5000 resamples), the 95% bias-corrected confidence interval of indirect effects was calculated to test the significance of WE mediation effects. Second, the significance of the direct effects was examined to identify the type of mediation present (Hair et al., 2017). The indirect effect of HPWPs on CRP via WE (0.066, $t = 2.612$, $p < 0.01$) is significant but positive. Concurrently, the direct effect of HPWPs on CRP (-0.186, $t = 3.110$, $p < 0.01$) is significant and negative, thereby, confirming a competitive partial mediation (Nitzl, et al., 2016; Hair et al., 2017). Further, the indirect effect of HPWPs on TI via WE is significant and negative (-0.151, $t = 5.107$, $p < 0.01$). Likewise, the

direct effect of HPWPs on TI (-0.165, $t = 2.919$, $p < 0.01$) is negatively significant, confirming complementary partial mediation.

TABLE 5: SIGNIFICANCE ANALYSIS OF THE MEDIATION EFFECT.

Direct Effect (p_3)	Size	t -Values	Sig.	95% Confidence Interval of Direct Effect
HPWPs $\rightarrow$ CRP	-0.18	3.11	***	[-0.295, -0.062]
Indirect Effect ($p_1 \cdot p_2$)	Size	t -Values	Sig.	95% Confidence Interval of Indirect Effect

HPWPs $\rightarrow$ WE $\rightarrow$ CRP	0.07	2.61	***	[0.019, 0.118]
Direct Effect (p_3)	Size	t -Values	Sig.	95% Confidence Interval of Direct Effect
HPWPs $\rightarrow$ TI	-0.17	2.92	***	[-0.277, -0.053]
Indirect Effect ($p_1 \cdot p_2$)	Size	t -Values	Sig.	95% Confidence Interval of Indirect Effect
HPWPs $\rightarrow$ WE $\rightarrow$ TI	-0.15	5.12	***	[-0.214, -0.098]

Mediation ($p_1 \cdot p_2$ is significant, p_3 is significant, $p_1 \cdot p_2 \cdot p_3$ is positive), Competitive Partial Mediation ($p_1 \cdot p_2$ is significant, p_3 is significant, $p_1 \cdot p_2 \cdot p_3$ is Negative), Indirect Only Mediation ($p_1 \cdot p_2$ is significant; p_3 is not significant), Direct Only Mediation ($p_1 \cdot p_2$ is not significant, p_3 is significant), No Effect Mediation ($p_1 \cdot p_2$ is not significant; p_3 is not significant).

DISCUSSION

The purpose of the present study was to examine antecedents and consequences of WE in the Kenyan hotel industry. HPWPs as manifested by TR, EMP and RW were positioned as potential antecedents of WE whilst CRP and TI were positioned as its consequences. Consistent with the predications of this study, availability of job resources such as HPWPs boosted WE among FLEs. FLEs in a supportive work environment with resources such as TR, EMP, and RW, perceive that their organizations value them, and as such, experience positive emotions resulting in higher engagement levels (Karadas and Karatepe, 2019; Karatepe and Olugabde, 2016).

As anticipated, high WE levels among FLEs' mitigated against TI. This result corroborates prior research (Karadas and Karatepe, 2019) which established the negative relationship between WE and TI. Notably, high WE levels did not stimulate CRP among FLEs. This finding was unorthodox and inconsistent with prior findings (Karatepe and Olugbade, 2016). This could be explained by the nature of frontline jobs, which are characterised by routine jobs with high work demands (Karatepe, 2013a). As such, FLEs are likely to perceive their work as demanding and uninteresting, leading to withdrawal behaviour such as reluctance to offer innovative solutions to customer problems or improve service.

Additionally, WE partially mediated HPWPs effects on CRP and TI. These findings lend empirical support to SET and the motivational pathway of the JD-R model, and are consistent with prior findings (Karatepe and Olugbade, 2016; Karadas and Karatepe, 2019).

PRACTICAL IMPLICATIONS

The current study's findings have significant practical implications for hotel managers. Firstly, it is crucial for hotel managers to prioritize indicators of high-performance work practices (HPWPs). The study confirms that practices such as training (TR), empowerment (EMP), and rewards (RW) are effective in frontline jobs. Implementing these practices is essential for

managing performance and fostering engagement among FLEs. By adopting these practices, hotel managers can enhance the abilities and skills of FLEs and encourage them to stay within the organization while performing at a higher level. These practices can additionally help FLEs handle job demands as well as attract and retain highly qualified FLEs.

Secondly, hotel managers need to recognize the importance of social exchange behaviour in fostering

WE among FLEs. It is crucial for organizations to invest in valuable resources that encourage FLEs to reciprocate with increased levels of engagement. This, in turn, leads to positive behavioural and performance outcomes, such as reduced turnover intentions (TI). Therefore, hotel managers should provide FLEs with training programs that enhance their technical abilities, decision-making skills, and behavioural competencies. Additionally, fair reward policies, both financial and non-financial, should be implemented, and FLEs should be empowered with autonomy to make decisions during the service delivery process.

Finally, hotel managers must recognize that WE is a long-standing and continuous process involving a series of on-going interactions that foster obligations and enforce a state of independent reciprocity (Cropanzano and Mitchell, 2005). Therefore, management should consistently provide FLEs with the necessary resources and benefits to maintain this state of reciprocity and retain an engaged workforce that demonstrates desirable behavioural and performance outcomes.

RECOMMENDATIONS

Firstly, the study employed a cross-sectional survey design which restricts the ability to establish causal relationships between variables. To overcome this limitation, future researchers should consider adopting a longitudinal design to investigate and observe the long-term effects of the hypothesized relationships. This would provide a more comprehensive understanding of the dynamics and potential causality between the variables under study. Second, although we accounted for statistical controls to mitigate against common method bias, data obtained were exclusively collected using self-reported questionnaires. The single source nature of data in the present study exposes construct measures to common method bias risk. Specifically, self-reported CRP measures will likely invoke 'espoused' or 'normative' FLE responses. Future researchers should consider collecting data from alternate sources e.g. performance data from supervisors (Yavas, Babakus and Karatepe, 2013).

Third, study findings are not necessarily generalizable to other hotel contexts, given that research within other locales may produce varying results. The replication of this research in various contexts would provide a more detailed understanding of the study's relationships and further ascertain the validity and generalizability of results. Lastly, TR, EMP and RW were selected as relevant and significant HPWPs indicators. However, there exist other potential indicators e.g., selective-staffing, work-life balance, and teamwork (Karatepe, 2013b), that may also be useful in frontline service jobs. Thus, incorporation of alternative HPWPs indicators in future research would provide additional insights.

CONCLUSION

Based on the principles of SET and the motivational process of the Job Demands-Resources (JD-R) model, a conceptual model was developed and empirically tested to explore the factors leading to Work Engagement (WE) and its consequences. The study's findings revealed that high-performance work practices (HPWPs), specifically training (TR), empowerment (EMP), and rewards (RW), play a significant role as antecedents of WE in frontline service jobs. Additionally, turnover intention (TI) was identified as a consequence of WE. Interestingly, the study also uncovered an unexpected result, indicating that CRP is not a job outcome of WE among FLEs.

Furthermore, the results from the study also provided an in-depth understanding of the mechanisms through which HPWPs can influence organizationally-valued job outcomes in frontline service jobs. This was established through post-hoc mediation analysis, where WE was found to be a partial mediator of the effects of HPWPs on the job outcomes CRP and TI. Consequently, this study enhances the understanding of researchers and practitioners regarding the specific mechanisms through which HPWPs can affect subsequent job outcomes in the hotel industry, particularly within the empirical context of a Sub-Saharan African country.

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A typology of the legal aspects of ethical supply chain management in the fast-moving consumer goods industry of South Africa

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ABSTRACT

The application of business ethics in Supply Chain Management (SCM) activities in the business environment has attracted much-needed attention from research academics and practitioners alike in recent years. Less attention has been directed, however, towards private businesses that seek to employ ethical compliance towards SCM processes. In view of the growing importance of ethical conduct in the private industry, the purpose of this study is to analyse the legal aspects of ethical SCM in the fast-moving consumer goods (FMCG) industry of South Africa. In this study, a quantitative research approach was employed to examine and test the legal aspects of ethical SCM in the FMCG industry of South Africa. A cross-sectional survey design was utilised to collect and test the empirical data collected from 221 purposively selected professional employees and managers in the FMCG industry in Gauteng Province. The collected data were analysed through the use of the Statistical Packages for Social Sciences (SPSS version 26.0) software. The results of the t-tests reveal that both male and female managers and employees in the FMCG industry share similar attitudes regarding their adherence to legal aspects of ethical SCM. The t-tests results further reveal that the six factors that govern legal aspects in FMCG firms are evenly distributed across all gender categories. As a result, Managers and professional employees from the procurement department have different attitudes on legal aspects when compared to those in other departments such as transport, warehouse, contract management and customer services employees. This has an impact on management changes, possibilities, pioneering and progress within the FMCG firms.

Keywords: Legal aspect, Ethical, Supply chain management, Fast moving consumer goods, Procurement

Introduction and background

The Fast-Moving Consumer Goods (FMCG) industry is one of the principal industries determining the success of most national economies (Nandonde & Kuada, 2016). According to several authors (Bala & Kumar, 2011; Colicchiaa, Creazzaa & Dallarib, 2017), FMCG is an industry with generally low-cost products that have a relatively short shelf life and are usually purchased by consumers regularly. The main research question is what are the typology of the legal aspects of ethical supply chain management in the fast-moving consumer goods industry of South Africa? In South Africa, the FMCG industry is one of the largest economic industries, contributing substantially to the gross domestic product (GDP) The FMCG industry is among the key economic segments in the food processing industry, which is one of the

major industries in South Africa, generating substantial revenue for the country and providing employment opportunities (Fedderke & Szalontai, 2012). In addition, Statistics South Africa (2017) reports that the food and beverage industry generated incomes of over ZAR 40.2 billion and nearly ZAR 42.2 billion in 2016 and 2017, respectively. This is indicative of its contribution to the national economy, in which a significant percentage is from the FMCG industry. The Department of Agriculture, Forestry and Fisheries (2014) reports that the FMCG industry formally employed nearly 200 000 people. Furthermore, the food processing industry and its business practices impact on the success of this particular industry (Industrial Development Corporation, 2016). To address the above complexities and still operate competitively, South African firms in the FMCG industry still need to opt for strategies such as low-cost sourcing from different countries, centralised distribution centres and outsourcing (Nandonde & Kuada, 2016). For this reason, Vee and Skitmore (2013) reveal that the demand for formidable ethical practices is still on the increase to allow for any advancement in the FMCG industry to take place. The same authors' further state that proper implementation must address ethical issues and policing of ethical guidelines by aligning them with how SCM practices operate. As a result, the proper implementation of policing of ethical guidelines is aligned through the SCM regulations issued in terms of the available legislation, which lay down the requirements for the governance of procurement processes and establish a high-level policy competence and ethical abundance in South Africa.

Problem statement

Over recent years, approaches to the subject of ethical SCM has shifted to a more significant approach on how businesses have been able to incorporate measures that enable good practices to be conducted within procurement (Beske-Janssen, Johnson & Schaltegger, 2015). Several authors (Schwepker & Schultz, 2013; Ermasova, Wagner & Nguyen, 2017) indicated that supply chain professionals who are responsible for managing intra- and inter-organisational problems often end up making unethical decisions that maximise only their personal or their firm's benefit, rather than pursuing mutually beneficial outcomes for all firms in the supply chain. Indeed, FMCG logistics operations in Africa can be quite different to those in more developed countries, with a wide variety of potential disruptions and delays which cause uncertainty (Bloem & Bean, 2015). For this reason, the nature of uncertainty and how it is managed provides a wider view on both supply chain operations and the external operating environment as a major issue for logistics providers in the FMCG Industry (Mvubu, 2016). Scholars further assert that FMCG firms find it difficult to create a meaningful corporate brand around a similar collection of products and resort to individual branding due to unethical procurement decisions (Bikram & Mandeep, 2013; Nandonde & Kuada, 2016). In addition, the concerns regarding ethical performance in the FMCG industry are becoming more significant and this necessitates the need to concentrate on addressing ethical issues and enable embeddedness of codes of ethics in FMCG firms (Moola & Bisschoff, 2012). Despite the effectiveness of codes of ethics in the supply chain industry and the call for an implementation approach in FMCG firms, there is still a paucity of research in this direction (Oladinrin & Ho 2016). Botes and Henrico (2016) focused on managerial competencies to enhance performance culture from an FMCG perspective, while Nguegan and Mafini (2017) focused on investigating SCM problems in the food processing industry. It has become evident that previous studies conducted in the FMCG industry directed little or no attention to ethical SCM. Furthermore, extensive reviews done on various databases reveal there is still a lack of evidence on the studies performed on investigating factors that drive ethical SCM in South Africa's FMCG industries. The current study seeks to fill that gap, thus identifying these factors and determining how they influence the functioning of the FMCG industry in South Africa.

The Fast-Moving Consumer Goods Industry in South Africa

FMCGs are firms that market goods commonly transacted and consumed in a short period, up to one year (Nemtajela & Mbohwa, 2016). Bala and Kumar (2011) declare the four categories for FMCG organisations as personal care, food, home care and refreshment. Research in South Africa, conducted by Mokheseng, Horn and Kloppe (2017), has revealed

that the FMCG industry's importance in the country emanates from proper supply chain planning and design through the elimination of various problems. These problems include inferior customer service issues, communication problems, relatively too high or too low inventory levels for the level of customer service to be achieved, poor coordination of efforts, as well as long production and delivery lead-times. Although the FMCG industry in South Africa provides a vast number of benefits to the economy, it experiences a number of pressing challenges. The local South African retailers are struggling to remain competitive against international rivals, partly because of labour unrest, high local wages and inflexible labour policies (Price Waterhouse Coopers, 2012). Furthermore, fluctuations in currency are another macro-environmental risk affecting retailers in the FMCG industry, particularly those that source key merchandise from abroad. Such firms face the risk of longer lead times, affecting not only product availability on the retailers' shelves but resulting in the inability to pass any consequent price increases onto consumers.

Ethical supply chain management

Ethical SCM may be perceived as a situation in which an official's decisions in a particular organisation are influenced by the interests of the organisation, which operates in a specific supply chain (Mbhele, 2016). Rajaguru and Matanda (2013) ascertain that ethics between partner firms has been a critical issue in SCM in which firms in the FMCG industry endeavour to balance the rights and duties of stakeholders, including society, employees, customers, investors, and suppliers. Rambe and Ndofirepi (2017) point out that given the middleman role that employees of emerging retail firms play in the supply chain, from manufacturers to the consumers, the ethical perceptions of these employees are critical to the leveraging of businesses' strategic orientations. Nevertheless, there has been a concerted effort to pinpoint many unethical practices in the SCM terrain. These include embezzlement, extortion, fraud, fronting, irregular and unwanted purchases, inflated prices, and ghost suppliers, to name a few (Mantzaris, 2014; Chinomona, 2023). Botha (2012) further mentions that desisting from unethical practices such as bribery, theft, coercion, deception, and unfair discrimination enable businesses to perform optimally as an expression of business ethics. Equally, the absence of transparency, accountability and appropriate and honest systems and processes in SCM systems leads to corruption and misuse of funds, which has cost South African citizens billions of rand (Munzhedzi, 2013; Nandonde & Kuada, 2016).

Research methodology

Design

In this study, the quantitative research method was used to determine the underlying factors of ethical SCM in the FMCG industry. A quantitative research approach refers to research that involves collecting numerical data that explain a particular phenomenon (Hopkins, 2013; Creswell, 2014). The rationale behind adopting a quantitative approach is to address its objectives by obtaining the views of numerous professional people employed in the FMCG industry. A cross-sectional survey design was used, which involves the collection of data at one point in time from the sampled respondents (Leedy & Ormrod, 2013). This was conducted using a structured research questionnaire.

Data collection and measuring instrument

Several methods were used to distribute the questionnaires to the professional employees working under different FMCG organisations within the Gauteng Province of South Africa. The first method used was the drop and collect method, which involved the face-to-face distribution and collection of hard copies of the questionnaires to and from the respondents. The questionnaires were delivered to the respective firms and workstations in which professional employees within the FMCG industry were situated. The other method used involved email surveys. Email surveys were suitable due to the proximity issues in which some respondents were geographically dispersed in the areas that were covered in this study. For this reason, delivering copies to the respondents in hard format was difficult. Thus, the email addresses for such respondents were collected from their workstations and used as a reference point for

contacting them. From the initial 350 questionnaires distributed, a total of 251 questionnaires were returned of which 30 were wrongly recorded. The total number of questionnaires returned that were fit for data analysis was 221, which represented a response rate of 63 per cent. A response rate is defined as the proportion of completed surveys by eligible respondents (Agustini, 2018).

Analysis of results

The first stage conducted in this statistical approach was ascertaining the data preparation procedures to make sure the data would be suitable for actual analysis. Thereafter, data were analysed using descriptive statistics such as the tests for normality of data and the exploratory factor analysis which ascertains the factors that determine the level of ethical compliance by FMCG employees. The statistical package for social sciences (SPSS), (version 26.0) was employed to analyse data for descriptive statistics and exploratory factor analysis. Inferential statistics such as t-tests and ANOVA were employed to test for the mean differences between the different demographic categories such as age, gender, race and educational level.

Factor Analysis

The legal aspects of ethical SCM were determined using exploratory factor analysis, which was conducted using principal component analysis (PCA) with varimax rotation and Kaiser normalisation. PCA analyses the relationships between the individual and total (common and error) variances shared between items (McNeish, 2017). A PCA test was performed to check the number of factors influencing variables and to analyse which variables have similar components. EFA was performed using a set of three criteria to determine the factor structure of the legal aspects under consideration in this study. The three criteria included factor loadings, communalities, and the scree plot criterion. Thereafter, several statistical decisions were considered in testing for sampling adequacy before conducting the EFA. To check for the factorability of the data, Bartlett's Test of Sphericity and a Kaiser Meyer Olkin (KMO) test of sampling adequacy was performed.

The KMO test ensures that the strength of relationships among variables is based on zero-order and partial correlations while measuring sampling adequacy for each variable and the overall model (Watson, 2017). Tabachnick and Fidell (2013) attest that in order to proceed with an EFA procedure in any particular study, the KMO values should exceed 0.50. The KMO and Bartlett's tests were performed on the legal aspects measurement scale. The KMO values of the legal aspects construct registered values of 0.724 which was above the minimum cut-off value of 0.5 (Tabachnick & Fidell, 2013). The significance level of Bartlett's test was $p=0.000$ for the legal aspects construct. Since the results of the Bartlett's and the KMO tests satisfied the recommended thresholds, it was determined that the collected data was factorable; hence, EFA could be performed. The results of the EFA procedure on legal aspects are presented in Table 1.

Table 1: Exploratory factor Analysis

Factor	Construct	Items	Factor loadings	Communalities	Percentage variance explained	Cronbach's alpha
1	Moral standards	LC5 LC6 LC7 LC8	.704 .851 .803 .661	.562 .740 .717 .615	20.673%	0.796
2	Transparency	LC1 LC2 LC3	.855 .896 .764	.755 .828 .651	12.558%	0.823

Factor	Construct	Items	Factor loadings	Communalities	Percentage variance explained	Cronbach's alpha
3	Professional competence	LC17 LC18 LC19	.642 .870 .819	.507 .764 .698	10.736%	0.700
4	Corporate governance	LC13 LC14 LC15	.720 .782 .766	.616 .655 .607	7.697%	0.661
5	Accountability	LC10 LC11	.836 .855	.793 .763	7.324%	0.764
6	Honesty	LC20 LC21	.876 .829	.776 .724	6.229%	0.651
KMO: 0.724 Bartlett's Test of Sphericity: 0.000 Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalisation. Loading <0.50 excluded from analysis						

As revealed in Table 1, the EFA procedure for the LC scale produced six factors. The retained components had factor loadings which were above the recommended threshold of 0.5. The six factors retained all registered eigenvalues that were greater than one.

Legal aspects and gender

In order to ascertain whether there were statistically significant differences in legal aspects and the gender of the FMCG managers and professional employees, independent sample t-tests were conducted. The Levene's test of equality was used to assess the statistical assumption of homogeneity of variance between subject categories. The t-tests were performed on the two gender categories, namely male and female. The two categories were measured on legal aspects (consisting of six factors). Thereafter effect sizes were also calculated to determine the quantitative measure of the magnitude of the experimenter effect between the two groups. The results of these t-tests are reported in Table 2.

Table 2. T-test of legal aspects and gender

Legal Aspects	Male Mean & Std dev	Female Mean & Std dev	p-value	t-value	F-value	Effect size
Moral standards	3.99 (±0.71)	4.03 (±0.66)	0.690	-0.399	0.019	0.04
Transparency	3.96 (±0.70)	4.02 (±0.57)	0.478	-0.711	2.046	0.09
Professional competence	4.39 (±0.61)	4.31 (±0.62)	0.309	1.019	0.000	0.13
Corporate Governance	4.06 (±0.68)	4.17 (±0.58)	0.230	-1.205	0.001	0.17
Accountability	3.95 (±0.78)	4.09 (±0.79)	0.204	-1.274	0.093	0.18
Fairness	4.36 (±0.57)	4.34 (±0.58)	0.803	0.250	0.005	0.03
* Statistically significant difference $p \leq 0.05$						

Table 2, reports that a t-test on gender was conducted to compare the statistical differences ($p < 0.05$) on LC between males and females. With regards to the p values, Moral Standards recorded ($0.690 > 0.05$), Transparency ($0.478 > 0.05$), Professional Competence ($0.309 > 0.05$), Corporate Governance ($0.230 > 0.05$), Accountability ($0.204 > 0.05$) and Fairness ($0.250 > 0.05$). This reveals that the responses of both females and males were not statistically significant as the p-value on all factors were greater than 0.05. This also indicates that both male and female managers and employees in the FMCG industry share similar attitudes regarding their adherence to legal aspects of ethical SCM. As a result, the six factors that govern legal aspects in FMCG firms are evenly distributed across all gender categories.

Legal aspects and occupational area

In order to compare whether there were any significant differences between the legal aspects and race of the respondents, a parametric alternative of one-way-analysis of variance (ANOVA), was used. The ANOVA test was deemed appropriate for this study because four race categories of FMCG managers and professional employees were tested simultaneously. The results of these ANOVA test on legal aspects and race are reported in Table 3.

Table 3: ANOVA for Legal Aspects by occupational area

Occupational area	Transport	Warehousing	Contract management	Procurement	Customer services	F- value	P-value
Moral Standards	3.93 (± 0.66)	3.66 (± 0.92)	4.04 (± 0.67)	4.06 (± 0.66)	4.05 (± 0.67)	1.341	0.256
Transparency	3.64 (± 0.73)	3.69 (± 0.78)	4.02 (± 0.69)	4.07 (± 0.61)	3.99 (± 0.60)	2.572	0.039*
Professional Competence	4.51 (± 0.75)	4.04 (± 0.58)	4.30 (± 0.61)	4.30 (± 0.66)	4.57 (± 0.36)	3.290	0.012*
Corporate Governance	4.27 (± 0.52)	3.94 (± 0.79)	4.27 (± 0.43)	4.10 (± 0.66)	4.08 (± 0.60)	.864	0.486
Accountability	4.10 (± 0.71)	3.82 (± 0.79)	3.85 (± 0.78)	4.02 (± 0.78)	4.10 (± 0.81)	.663	0.618
Fairness	4.30 (± 0.62)	4.44 (± 0.30)	4.25 (± 0.55)	4.36 (± 0.59)	4.35 (± 0.63)	.293	0.882
* Statistically significant difference $p \leq 0.05$							

The results of the ANOVA test in Table 3 that was conducted between Moral Standards, Transparency, Corporate Governance, Accountability and Fairness with the occupational area of employees in the firm. Statistically significant differences were noted with regard to transparency ($F=2.572$, $p\text{-Value}=0.039^*$) in the procurement department. Other mean differences were noted in terms of professional competence ($F=3.290$, $p\text{-Value}=0.012^*$) in the warehousing and customer services departments. Subsequently, due to the significant differences observed regarding transparency and professional competence, post-hoc tests were performed. Table 4 indicates the results of the post hoc tests performed on the professional competence variable.

Table 4. Post-hoc analysis on Professional Competence

Dependent Variable	(I) Occupational area	(J) Occupational area	Mean Difference (I-J)	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
			Customer services	-.05556	.998	-.5427
	*Warehousing	Transport	-.47190	.178	-1.0581	.1143
		Contracting	-.26078	.683	-.8067	.2851
		Procurement	-.25770	.466	-.6867	.1713
		Customer services	-.52745*	.017*	-.9920	-.0629
* Statistically significant difference $p \leq 0.05$						

The post-hoc analysis performed in Table 4 indicate that there were significant differences ($p=0.017$) observed for the professional competence of employees who work under the warehousing department ($\bar{x}=4.04$) and customer services ($\bar{x}=4.57$) when compared to those in other departments.

Discussion

Factor 1, labelled as Moral Standards, consisted of four items (LC5, LC6, LC7 & LC8) and accounted for 20.67% of the total variance explained. Moral standards are concerned with cautious and logical reflections about the behaviour of employees in the workplace (Perezts & Picard, 2014). In essence, the moral principles which employees are expected to display enable an organisation to achieve a correct analysis of situations. Hence, a distinction has been made by Yuan, Vu and Nguyen (2018:35) who insist that ethics is a matter of understanding, whereas morality is a matter of doing. Thus, moral standards provide a rational criterion for employees to decide to behave in a principled manner, and it may not be associated with learning and life experiences (Mayer, Aquino, Greenbaum & Kuenzi, 2012). Morality is designed or shaped by the rules or instructions given by those with authority or expert personnel, whether or not employees approve certain decisions (Yuan *et al.*, 2018:35). For this reason, supervisors and managers in the workplace are encouraged to display systematic reflections on certain situations for employees to adhere to the organisation's code of ethics.

Factor 2, labelled as Transparency, consisted of three items (LC1, LC2 & LC3) and accounted for 12.56% of the total variance explained. Transparency can be defined as a perception that focuses on the disclosure of information that is shared voluntarily and intentionally (Lin, Eisingerich & Doong, 2017). More so, transparency reviews access to information and direct it to certain objectives that are aligned to an organisation's consumer policy guideline. Romani and Grappi (2014) outline that transparency in businesses is good for consumers, which necessitates the organisation's willingness to engage in sustainable and responsible ways of conducting business activities. A study conducted by Doorey (2011) indicates that transparency in SCM highlights a powerful tool that acts as an organisation's confidence mechanism amongst its stakeholders such as its suppliers and other industry players. Based on the findings of this study, managers and professional employees in the procurement department have different views on transparency compared to the rest of other occupational area categories.

Factor 3, labelled as Professional Competence, consisted of three items (LC17, LC18 & LC19) and accounted for 10.74% of the total variance explained. Professional competence in business is described as a combination of organisational and individual abilities to undertake various tasks within the constraints of their workplace environments (Adesi, Owusu-Manu & Murphy, 2016). Nalewaik (2012) suggests that ensuring professional competence amongst

organisations requires both technical and managerial competence to meet stakeholder expectations. Adesu *et al.* (2016) indicate that competencies are human characteristics for effective professional performance, providing some important characteristics such as knowledge, skills, and special attributes for success in a particular endeavour. A study conducted by Perianez-Cañadillas, Charterina and Pando-García (2019) indicate that larger organisations tend to invest more resources to perform tasks, resulting in a higher preference for internal training within supply chains. Thus, it is plausible to assume that firm size has a far-reaching conditioning effect on the required competencies in order for firms to conduct businesses in an ethical manner (*ibid*).

Factor 4, labelled as Corporate Governance, consisted of three items (LC13, LC14 & LC15) and accounted for 7.68% of the total variance explained. Corporate governance has been linked to the success and sustainability of industries that promote ethical compliance and functionality (Devaney, 2016). As such, developing SM and accountability remains a fundamental issue together with improving engagement from the other crucial players in the SCM environment such as the planning and control personnel. However, several issues and challenges in terms of corporate governance that are specific to firms have been widely scrutinised by industry experts in emerging markets of different countries (Turner, Fitzsimmons, Forster, Mahon, Peterson, & Stead, 2014). Such challenges include the limited levels of participation by women as team leaders within the governance structures of their organisations. Secondly, it is necessary to develop appropriate training and support for procurement personnel in the context of relatively low levels of literacy and related skills. As a result, such actions could reduce conflicts between members and their boards as these appear to be present in modern-day business activities (Turner *et al.*, 2014).

Factor 5, labelled as Accountability, consisted of two items (LC 10 & LC11) and accounted for 7.32% of the total variance explained. The factor attained a Cronbach's alpha of 0.764, which indicates an acceptable internal consistency value. This high Cronbach's alpha is the rationale for retaining the factor even though it consisted of two measurement items. Accountability is a system that organisations have imposed in their policy documents and is guided by virtue of a contract, fiduciary duties, and regulatory standing to intervene in certain circumstances of unethical practices (Tyler, Absher, Garman & Luppino, 2017). In essence, sound practical accountability measures in organisations create an opportunity to prioritise flexibility and legal accountability for social good. This, however, attracts open paths to pursue value at the expense of social good, which may or may not be what policy intends. Bradford, Luke and Furneaux (2018) denote that accountability is largely influenced by dominant stakeholders, such as crucial suppliers and funding organisations, which may have strict procedures required for submission of reports on outputs and impacts on collective turnover figures. As a result, formal accountability is directed to such stakeholders, whereas more informal types of accountabilities are channelled to less powerful stakeholders such as internal auditors (Abouassin & Trent, 2016).

Factor 6, labelled as Fairness, consisted of two items (LC 20 & LC21) and accounted for 6.23% of the total variance explained. This factor registered a Cronbach's alpha value of 0.651 of internal consistency. Although the factor had two items, it was retained in the study because of its acceptable reliability. A study by Cropanzano, Fortin and Kirk (2015) ascertained that fairness brings beneficial results to both employees and employers. As such, when employees advocate that they have been treated fairly, they display these attributes by revealing more positive work attitudes, higher job performance, and an acceptable citizenship behaviour. Kennedy and Santos (2019) assert that whenever fairness is projected in organisations when dealing with different stakeholders such as suppliers, trust can be ascertained within the different spheres of business mainly through employee engagement and non-exploitative intent. This promotes due diligence when addressing issues such as procurement and buying of goods in the supply chain industry.

From the statistical analysis performed in this study to ascertain mean differences, independent sample t-tests revealed that male and female professional employees affiliated to the FMCG industry of South Africa share similar perceptions towards legal aspects. The ANOVA tests performed in this study revealed that differences exist in factor 2 (transparency) for the occupational area category. Statistically significant differences were noted about transparency ($F=2.572$, $p\text{-Value}=0.039^*$) in the procurement department. This result implies that the attitudes towards transparency are different in the procurement department when compared to the rest of the occupational areas. Other mean differences were noted in terms of professional competence (factor 3), ($F=3.290$, $p\text{-Value}=0.012^*$) in the warehousing and customer services departments. This result signifies that managers and professional employees in the FMCG industry differ from those in other departments in terms of their professional competence.

Post hoc tests were performed in order to determine the extent to which the differences found on the professional competence variable lie. The post-hoc analysis indicates that there were significant differences ($p=0.017$) observed for the professional competence of employees who work under the warehousing department ($\bar{x}=4.04$) and customer services ($\bar{x}=4.57$) when compared to those in other departments. Consistent with the result above, a study conducted by Cao and Zhang (2011) focusing on risk and ethical performance in supply chain reveals that employees working under customer services and operations tend to display high levels of professionalism and competence because of their responsibilities in dealing with the organisation's most important stakeholders, the customers. Similarly, the results presented in the post-hoc analysis indicate that managers and professional employees in customer services and warehousing departments exhibit different attitudes towards professional services in comparison to those in the rest of the departments.

Limitations and implications for further studies

The sample from which data were drawn was based in the Gauteng province of South Africa. Confinement in the sample limits the credibility of the research since the data only reveals the patterns of employees situated in one area and who practice ethical responsibilities under a similar organisational environment. Thus, results drawn from this study may only apply to the FMCG industry in Gauteng Province and cannot be generalised to similar sectors in other provinces of the country. Additionally, questionnaires used in this study were based on adapted measurement scales that were originally developed for use in other environments, such that a greater number of ethical SCM factors could have been identified if a survey instrument had been developed specifically for this study. The study was susceptible to non-response bias as there was a large number of targeted respondents who did not complete the questionnaires.

Conclusions, theoretical and managerial implications

This study aimed at exploring the factors that determine ethical SCM in the FMCG industries of South Africa. The study was targeted at examining the factors that have an influence on ethical compliance within the FMCG industry. It was also intended to investigate mean differences against various demographic factors pertaining to managers and professional employees in this industry. This study provided several theoretical contributions. The study enlisted underlying factors that determine the influence of ethical SCM. These factors were identified using the EFA procedure. Most of the previous research concentrates on business ethics in general, whereas this study has narrowed this subject to the area of SCM. The study has also directed its focus to the FMCG industry where there is limited evidence of such studies, especially within South Africa. The study has also identified or developed specific ethical SCM factors in terms of the dimensions of legal aspects that may not have been identified in previous research. The study further contributes to the theory of the impact of demographic factors on the application of ethical SCM in the FMCG industry.

Recommendations

Several recommendations may be made based on the results of the study. In order to circumvent FMCG induced structural related challenges, the training of managers and professional employees remains a catalyst to increase their knowledge, skills and overall competency within the industry. Secondly, the recruitment processes in the industry need to be more systematic as this promotes the development of a unique brand of leaders that dictate sound and effective leadership processes. In this regard, a proficient team of managers should ensure that due diligence is applied in all SCM processes that require attention such as procurement processes and customer services. Such attributes should aim at delivering the organisation with highly qualified managers and professional employees that give a distinct feature of all who encompass the core functions that should be enlisted in the business.

Since the study aimed at revealing ethical SCM compliance, several guidelines are presented. Firstly, the implementation of a set of protocols that relate to good conduct is essential in SCM practices. In such a view, a clear set of guidelines that outline good conduct should be part of an employee's orientation with the use of practical scenarios and assessments which should be developed to ensure compliance of these measures. Secondly, several consequences for employees that have breached the policy guidelines of employees should be fully outlined. In this context, whenever employees practice unethical behaviour such as unauthorised disbursements of organisational funds, a clear and precise action should be taken to ensure employees' actions are considered. Lastly, the institution of various ethics development practices should be provided to employees in order to expose them to the concept of ethics and to empower them with skills to make ethical decisions. In light of this, a comprehensive programme of ethics training needs to be designed and implemented in order to create and maintain an ethical SCM environment in the FMCG industry of South Africa.

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Modelling the influence of supplier and customer coordination on social performance: Construction industry in the Gauteng province

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ABSTRACT

Construction industry is an important contributor to the economy of South Africa. In this industry, buyers and suppliers work in collaboration with each other to achieve superior supply chain performance. The purpose of this study is to investigate the influence of supplier coordination, customer coordination and coordination effectiveness on social performance of the construction industry. A quantitative approach was adopted in which a survey questionnaire was used to collect data from 414 construction supply chain managers and professional employees in the Gauteng province. The study used a non-probability convenience sampling technique to select respondents. Data were analysed with the aid of two software packages which are the Statistical Package for the Social Sciences (SPSS version 28.0) and the Analysis of Moment Structures (AMOS version 28.0). A confirmatory factor analysis was used in investigating and testing the relationships between observed constructs and their causal latent constructs while structural equation modelling was used to test the hypothesised relationships between constructs. The results revealed that supplier coordination, customer coordination and coordination effectiveness positively and significantly influence social performance in the construction industry. Thus, the results provide useful insights into how the construction industry could benefit from cultivating trust, assurance, and sustainable relationships between supply chain partners as well as on how to improve firm performance. This has an impact on management changes, possibilities, pioneering and progress within the construction industry in the Gauteng province of South Africa.

Keywords: Supplier coordination; Customer coordination; Coordination effectiveness; Construction industry; Social performance; Gauteng province.

1 INTRODUCTION

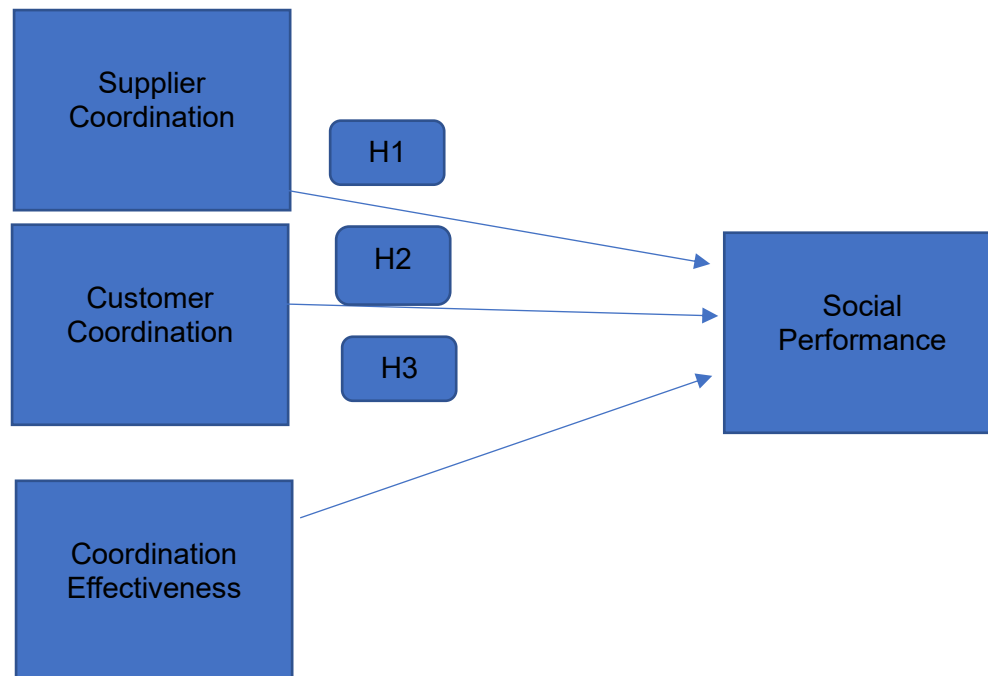
Since the construction industry differs from most other businesses and firms in other sectors of the economy, it is greatly influenced by how the industry performs its functions as a project-based industry (Othman, Rahman, Sundram & Bhatti, 2015; Chinomona & Mosidi, 2023). The construction industry entails different supply chains that need to be managed and organised differently depending on their situations and conditions. For example, Wu, Nisar, Kapletia and Prabhakar (2017) propose that these supply chains will vary depending on whether they are controlled by suppliers, contractors or architects. However, Segerstedt and Olofsson (2010) suggest that it is not unusual to hear that the construction industry totally differs from other industries and must find other purposes and ideas for refining performance and efficiency. However, the industry has recently not performed satisfactorily due to a long period of unutilised time during the Covid-19 pandemic, which inflicted destruction on an industry that likely became vulnerable to economic cycles (Ribeirinho, Mischke, Strube, Sjödin, Blanco, Palter, Biörck, Rockhill & Andersson, 2020). Similarly, Golini, Kalchschmidt and Landoni

(2015) indicate that the achievement of construction projects can be reliant on the entrepreneur with characteristics such as their experience, knowledge, capability and initiative being essential to project success. The success of the construction industry is measured by performance, therefore, the healthier the performance, the more prosperous and developing the construction industry will be (Nugroho, Setiawan, Sutopo & Wibowo, 2021). Stenmark (2021) suggests that effective supply chain coordination is required in the construction industry to manage all activities and relationships amongst stakeholders to achieve the optimum level of success and productive performance. A supply chain is observed as a network of firms involved in various activities such as planning, design, distribution, selling, support, usage, and recycling of products both upstream and downstream to enhance value in the form of products and services delivered to end customers (Pagell & Shevchenko, 2014). Since firms pursue different goals, research suggests that supply chain performance depends on how well supply chain partners work together and not on how well each partner firm performs individually (Jayaram, Xu & Nicolae, 2011). As such, in this common-goal view, the interdependent activities between supply chain bodies have to be coordinated to achieve an important fit among supply chain partners. Given the nature of interdependence between supply chain members, Soosay and Hyland (2015) advocate that collaboration involves multiple firms or autonomous business entities engaging in a relationship that aims to share improved outcomes and benefits. The complex networks of supply chains are composed of several players that strive towards different purposes and have multiple performance measures at different levels. Therefore, Aslam (2013) suggests that these networks become in conflict with each other and have to be considered in their operations. In addition, coordination mechanisms, which are tools for managing these interdependencies, are instrumental in eradicating supply chain sub-optimisation and achieving anticipated performance outcomes (Susha, Janssen & Verhulst, 2017). This being the case, construction supply chain coordination is a systemic construction corporate strategy that involves all the stakeholders in the construction process and requires them to establish common business goals (Schmidt & Redler, 2018). Thus, managers need to select suitable coordination mechanisms that can stimulate effective coordination in Construction Supply Chain (CSC).

The key fundamental issue in supply chain processes is that normally clients depend on capability outside the client's organisation, that is, products and services are usually not in-house and are obtained from the industry. The supply chain process coordination becomes complex and significant to determine the efficiency of the firms in the construction industry (Huo, Zhang & Zhao, 2015). Therefore, initiatives should be taken to apply best practices. One such practice would be the concept of coordination in the supply chain process to the construction industry. Furthermore, this study will address how supplier coordination, customer coordination and coordination effectiveness affect the social performance of the firms in the construction industry. Although numerous studies have been done to address the problem of performance in the construction industry, the application or execution of supply chain coordination has not been given much consideration to examine how it will advance social performance in the industry. Therefore, there is a need to investigate the impact of supplier coordination, customer coordination and coordination effectiveness on social performance in the construction industry in the Gauteng province.

CONCEPTUAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

This model consists of three predictor variables which are supplier coordination, customer coordination and coordination effectiveness and social performance as the outcome variable.



HYPOTHESES STATEMENT

H1: There is a positive relationship between supplier coordination and social performance.

H2: There is a positive relationship between customer coordination and social performance.

H3: There is a positive relationship between coordination effectiveness and social performance.

2. LITERATURE REVIEW

This simplified the critical analysis of the literature through correlating and constructing the perceptions, viewpoints and arguments by other researchers in similar studies.

2.1 A game-theory approach to supply chain coordination

To obtain a suitable contextual and organisational understanding of this study, the game theory suggested by Von Neumann and Morgenstern (1944) was used to observe the influence of supplier and customer coordination on operational performance. The theory suggested that supplier coordination and customer coordination can improve operational performance and decrease risks (Hennet & Arda 2008). For this, Hennet and Arda (2008) suggest that cooperative game theory can be of great help in designing a supply chain or a vital enterprise by choosing the best alliance of partners. Generally, the application of game theory to the supply chain, especially coordination, economic stability and supply chain efficiency has been

discussed by several researchers to enhance operational performance (Li, Huang, Zhu & Chau 2002; Yue, Austin, Wang & Huang 2006; Zhang & Huang 2010:121).

2.2 Supplier Coordination

As stated by Song, Cai and Feng (2017:4), supplier coordination in this study will provide the construction industry with core resources and technologies as well as information sharing to improve the performance of the industry. Supplier coordination is the process whereby the suppliers provide manufacturers with high-quality supplies, knowledge, technology and design to support the industry's new product development and produce new information for all parties (Yam & Tang 2013). Similarly, Patrucco, Luzzini and Ronchi (2017) define supplier coordination as the process that involves information-sharing with key suppliers to gain better knowledge on developments, competencies and challenges, thus allowing more effective planning and forecasting as well as creation and process design for the industry. Furthermore, Gulati, Wohlgezogen and Zhelyazkov (2012) define supplier coordination as the careful and organised arrangement of the team's activities to attain mutually determined objectives of the industry. Supplier coordination enables awareness in meeting quick changes in demand whilst allowing the construction industry to offer competitive pricing and invention diversification (Odhiambo & Nassiuma 2017). He, Lai, Sun and Chen (2014) note that supplier coordination encourages the formation of internal information networks and supply chain visibility, which leads to greater trust between the manufacturer and customer as well as enhanced customer coordination. Furthermore, supplier coordination, according to Feng, Sun, Sohal and Wang (2014) and Knoppen, Johnston and Sáenz (2015), provides the manufacturer with external information such as relationship detailed knowledge, the supplier's professional skills as well as new construction development-related knowledge. Importantly, Ho and Lu (2015) postulate that supplier coordination enables the supplier to achieve a greater understanding of the strengths, challenges and improvement prospects of shared activities leading to stronger operational performance and successful completion of projects. Generally, supplier coordination, according to Sadigh, Mozafari and Karimi (2012), generates models that can yield the price of materials to be purchased and order quantity to avoid purchasing unnecessary materials that will lead to a greater loss for the construction industry.

2.3 Customer Coordination

Customer coordination, according to Omoruyi (2015), is a process that enables the construction industry to achieve its goals and objectives, thus creating value and enhanced performance for the industry. Customer coordination is defined by Yam and Tang (2013) as a downstream integration that enables the construction industry to proactively seek information on customer preferences and needs and quickly respond to customers' needs before the competitors gain a competitive advantage. Dong and Sivakumar (2017, Dong, Sivakumar, Evans and Zou (2015), Mustak, Jaakkola and Halinen (2013) define customer coordination as the degree to which individual customers are involved in service production and delivery by contributing effort, knowledge, information and other resources. Furthermore, Alaloul, Liew and BWA Zawawi (2016) outline customer coordination as the process whereby customers bring about dependencies amongst undertakings and organise together various parts to achieve a combined set of tasks in the construction industry. Similarly, customer coordination, according to Prior, Keränen and Koskela (2019), deals with developing problems, coordinating difficult tasks and accomplishing task requirements within the construction industry. Customer coordination enables relationships between the construction industry and the customer by persuading the industry to adapt to the needs of customers, provide better services and products whilst creating good financial returns for the construction industry (Yu, Jacobs, Salisbury & Enns 2013). Other researchers (Chan, Yim & Lam 2010; Hoyer, Chandy, Dorotic, Krafft & Singh 2010; Stock 2014) mention that customer coordination increases the simplicity of new product development (NPD) management, granting customers more independence while decreasing the industries' control over NPD activities and limit the capability to influence technological knowledge.

2.4 Coordination Effectiveness

Coordination effectiveness is required in the construction industry for stability to produce materials without quality defects, late deliveries and cost overruns as well as no accidents or injuries for participants (Pagell, Klassen, Johnston, Shevchenko & Sharma 2015). Coordination effectiveness is defined by several researchers (Cooke & Hilton 2015 & Miloslavic, Wildman & Thayer 2015) as the ability of the construction industry to achieve satisfactory results for the team and its stakeholders as well as to attain the industry's primary objectives. Besides, Pavlou and El Sawy (2011) define coordination effectiveness as an active capability that enables the project team members to manage their dependencies such as sharing of resources, scheduling and synchronisation of constraints as well as goal selection when completing a project. Similarly, Hsu, Hung, Shih and Hsu (2016:96) define coordination effectiveness as the process of managing interdependencies between supply chain members, hence the degree of effective coordination in a project is determined by the way players can manage the interdependencies. Coordination effectiveness is beneficial in saving the cost of wasted materials, cost of storage, landfill tax and cost of disposal since reducing waste in construction projects has major economic benefits (Ajayi & Oyedele 2018). For this, Yuan (2013) postulates that coordination effectiveness enables the construction industry to achieve its main objectives namely economic, environmental and social performance when implementing construction and demolition (C&D) waste management. Sarker, Ajuja, Sarker and Kirkeby (2011) state that coordination effectiveness leads to trust in team performance, the capability of teams to resolve conflicts, mutual understandings of goals and organised task achievement dutifully. Furthermore, Paul, Drake and Liang (2016) mention that higher coordination effectiveness leads to higher team cohesion by increasing the attractiveness of the group, the enthusiasm to work for the group and the general incorporation of the group. Generally, coordination effectiveness, according to Werder, Li, Maedche and Ramesh (2019), improves the management of the project's process and allocation of resources, which are fundamental tools of effective coordination through progression procedure.

2.5 Social Performance

Social performance is the accountability of the construction industry to use its resources in ways that benefit the society through dedicated involvement as well as enlightening the welfare of the society independently and financially (Maliwa 2017). According to Dominicé and Narayanan (2017), social performance refers to the degree of fulfilment of a commitment to increase or decrease the interactions of individuals within a group. However, Wardle (2017) views social performance as the system that the construction industry uses to accomplish its set social goals and put customers at the focus point of strategy and operations. Furthermore, Lassala, Apetrei and Sapena (2017) view social performance as an extent to which the set of values and procedures of social accountability within the construction industry as well as guidelines, programmes and recognisable externalities are applied to different shareholders. Social performance achieves the sustainable development goals of the construction industry (Xia, Olanipekun, Chen, Xie & Liu (2018). However, Charlo, Moya and Muñoz (2017) mention that social performance reflects the concern of its management in environmental and social matters as a method of accomplishing its competitive differentiation in a global market. Alternatively, Avolio, Calderón and Rojas (2015) view the importance of social performance as being able to create a decent relationship between the construction industry and the society, because if the industry succeeds in developing the idea of social compassion, it can meet the expectations of the society according to its business sector. Hou (2019) states that social performance can enable the construction industry to attain social fairness and economic wealth by creating welfare for social groups whilst extending their reach beyond organisations and their shareholders.

3. METHODOLOGY

A quantitative cross-sectional survey design was used.

3.1 Psychometric Properties of the Measurement Scale

Psychometric properties of the measurement scale are reported in Table 1, which presents the research constructs, Cronbach alpha test, composite reliability (CR), average variance extracted (AVE) and item loadings.

Table 1: Scale accuracy analysis

Research constructs		Descriptive statistics		Cronbach's test		CR value	AVE value	Factor loading
		Mean	SD	Item total	α Value			
SUPPLIER COORDINATION	SC1	4.418	3.663	0.791	0.844	0.92	0.73	0.687
	SC2			0.895				0.805
	SC3			0.845				0.896
	SC4			0.899				0.779
	SC5			0.783				0.791
CUSTOMER COORDINATION	CC1	4.614	3.907	0.756	0.813	0.88	0.66	0.553
	CC2			0.845				0.791
	CC3			0.786				0.789
	CC4			0.847				0.634
	CC5			0.832				0.726
COORDINATION EFFECTIVENESS	CE1	4.394	3.630	0.856	0.757	0.782	0.59	0.705
	CE2			0.636				0.727
	CE3			0.704				0.735
	CE4			0.837				0.698
	CE5			0.754				0.719
SOCIAL PERFORMANCE	SP1	3.724	2.207	0.956	0.851	0.87	0.77	0.801
	SP2			0.853				0.811
	SP3			0.785				0.778
	SP4			0.892				0.591
	SP5			0.772				0.671

CR= Composite reliability; AVE=Average variance extracted.

** Scores: 1 – Strongly Disagree; 2-Disagree; 3 – Neutral; 4-Agree; 5 – Strongly Agree*

Validity and reliability are the main yardsticks used in quantitative research (Mohajan 2017). Validity and reliability would be assessed to evaluate the internal consistency in the research constructs as well as to conduct composite reliability in this research study. Cronbach's alpha

coefficient shows reliability that is high of the scale (Chinomona 2011). The Cronbach's alpha values in this research range from 0.757 to 0.851. Moreover, Taber (2018) mentions that a set of items that can be considered is from a minimum of 0.7. Therefore, the scales used in this study are reliable.

Table 2: Results of hypotheses testing (path modelling)

Proposed hypotheses relationship	H	PCE	P-V	D
Supplier coordination to social performance	H1	0.885	***	Accepted
Customer coordination to social performance	H2	0.553	***	Accepted
Coordination effectiveness to social performance	H3	0.678	***	Accepted

H= Hypothesis PCE= Path Coefficient Estimates PV= P- Value D=Decision

As shown in Table 2, the researcher presents the level of coefficients of all the 3 hypotheses and the level of $p < 0.01$. The significance levels of $p < 0.05$, $p < 0.01$ and $p < 0.01$ are indicators of either positive, strong and significant relationships between the research constructs (Chinomona, Lin, Wang & Cheng 2010). Based on that, all of the three hypotheses proposed in this research study were supported and accepted.

Discussion of the results

In this subsection, the study presented that the results of the hypotheses (H1 to H3) are at a significant level and support at a confidence level of $p < 0.01$. The following subsections present and discuss the hypotheses as indicated in Table 1 and 2.

Results for hypothesis 1

The first hypothesis (H1) in this study stated that there is a positive relationship between supplier coordination and social performance. The path coefficient of (H1) is ($r=0.885$). This value indicates a very strong relationship between supplier coordination and social performance. Thus, the p-value is significant at 99% ($r=0.001$), which means this hypothesis is supported and significant. These results are in line with a study conducted by Gay and Norrman (2016), which showed that proper supplier coordination leads to proper social performance.

Results of hypothesis 2

About the second hypothesis (H2), the study hypothesised that there is a positive relationship between customer coordination and social performance. Table 2, show the path coefficient value of ($r=0.553$) with p-value is significant at 99%. The positive correlation found between customer coordination and social performance is consistent with the results provided by Rahardja, Anandya and Setyawan (2018). From this research study, it can be concluded that the relationship between customer coordination and social performance increases performance in the construction industry generally. These authors further point out that trust plays a vital role in attaining a relationship between customer coordination and social performance because it can upturn profits for the construction industry.

Results of hypothesis 3

The third hypothesis (H3) was supported and accepted in this study. To confirm this, there was a positive and significant correlation ($r= 0.678$) obtained and the regression path is highly significant ($p < 0.001$) between coordination effectiveness and social performance. This relationship is validated at a 99% confidence interval and results are consistent with a study conducted by Revilla and Knoppen (2015) who associated construction performance between coordination effectiveness and social performance.

4. CONCLUSIONS AND RECOMMENDATIONS

The supply chain coordination indicated that supplier coordination and customer coordination should be extensively implemented in the construction industry to improve the social performance of the construction industry. Furthermore, trust, commitment and transparency between supplier coordination and customer coordination will enable the construction industry in achieving the main goal, which is performance. Theoretical contributions have been made to the existing literature. The main results of this study support the game theory developed by Von Neumann and Morgenstern (1944:1), which focuses on collaboration amongst teams and how they make strategic decisions. In this regard, supply chain coordination has played an important role in the performance of the construction industry. The study also emphasised the significance of supply chain coordination by enlightening that supply chain partners may be engaged in a relationship to attain the main goal of the construction industry. Therefore, it is important to know and understand the importance of supply chain coordination in the construction industry.

5. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS OF THE STUDY

The study had certain limitations that suggested directions for future studies. The study was limited only to the construction industries in the Gauteng province, therefore, additional provinces did not form part of this study. The study was carried out during the time of the Covid-19 pandemic. When conducting a study on the construction industry, other provinces should be considered to yield greater results. For this, data can be collected online. Additionally, future studies should also make use of a qualitative method to obtain in-depth insight into the influence of supply chain coordination and performance in the construction industry. Moreover, further research within the construction industry may be to identify a general measurement that can be used to measure the effectiveness of a coordinated supply chain.

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The impact of information and communication technology capability on supply chain management capabilities: The case of four municipalities in the uThukela district

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ABSTRACT

The focus of the study was to determine the impact of ICT implementation capability on municipal supply chain management capabilities. The study was framed within the positivist research paradigm. This study involved fifty (n = 50) municipal practitioners in the uThukela district. SMART PLS (3.0) statistical package and a five-point Likert scale questionnaire was used to collect data. This study employed the Dynamic capabilities theory which suggests that municipalities should renew the current competencies to cope with the changes in performance management. The study's findings showed that information and communication technology (ICT) capability has a positive impact on supplier relationship management (SRM), customer relationship management (CRM) and order processing management (OPM) in a systematic manner. Future studies are needed to determine the effect of ICT and customer relationship management to address performance management in South African municipalities. The practical implications of this study may explain to municipal decision-makers and managers the importance of ICT capability on supply chain management practices and municipal performance management.

Keywords: Capability integration, Customer relationship management, Dynamic capability theory, Information and communication technology, Supply chain management, Supplier relationship management

INTRODUCTION AND BACKGROUND

Supply chain management (SCM) is one of the key mechanisms implemented to manage government-owned entities to promote effective, efficient, fairness, equity, transparency, and ethical conduct in delivering service to people (Makgari, 2019). The government established the SCM Framework in 2003 to minimise wasteful and fruitless expenditure (Ambe and Maleka, 2016). With all measures put in place to curb malpractices in supply chain processes and the constitution emphasising procurement which is fair, equitable, transparent, and competitive cost efficiency, effective implementation of SCM in the public sector continues to experience bad publicity.

South African local government has faced significant obstacles. The local government SCM was reorganised in 2005, however, to date many municipalities are still struggling with

maintaining SCM regulations. There are several factors which have been recognised as causes to SCM non-compliance, such as ICT capability. SCM adoption in local government is facing significant obstacles, and close monitoring is necessary since the consequences of SCM failure in local government for municipalities in South Africa might be disastrous (Maila, 2020). Despite the presence of SCM systems in place, effectiveness with respect to acquiring, tendering, and sourcing goods and services in Municipalities remain difficult. A primary contribution to regressions in local government audit results are the result of a persistent inability to develop, implementing and monitoring efficient SCM ICT systems, oversight, and internal controls monetary accounting procedures. With repeated instances of futile, inconsistent, and unnecessary expenditure, compliance with SCM policies, regulations, and legislation frameworks require consolidation (Maila, 2020). Therefore, what is the impact of ICT implementation capability on municipal supply chain management capabilities in the uThukela municipal district?

Inadequate coordination and integration of quality standards requirements within the supply chain may result in an unusually high level of defects, rework, and non-conformance relative to quality (Fidelis Emuze and John Smallwood, 2013). As such, inefficient and unstable supply chain management systems lead to haphazard processing of orders, storage of material and poor inventory management that ultimately influence the audit outcomes (Makgari, 2019). The increase in irregular expenditure; mainly related to supply chain management has resulted in poor performance in some municipalities due to lack of poor compliance and capabilities (Ambe and Maleka, 2016). Look This research therefore aims to investigate the impact of ICT implementation capability on municipal supply chain management capabilities in the uThukela municipal district.

THEORETICAL FRAMEWORK AND LITERATURE REVIEW

The dynamic capability theory is regarded as an element of strategic management and is known to be performance-focused theory. The theory measures the organisations ability to integrate, build and reconfigure internal, external organisational skills, resources, and functional competences to address rapidly changing environment in order to achieve competitive advantage (Vogel and Güttel 2013). The dynamic capability concept such as ICT in supply chain examines management strategies to adapt to sudden changes as well as risks and opportunities in the market environment. ICT Dynamic capability also enables organisations influence and control their environment to achieve competitive advantage through long-term relationships, top management support, co-operation along the supply chain, supplier development and enhanced communication (Masteika and Cepinskis 2015; Isnaini, Nurhaida and Pratama 2020). The advantage of the ICT implementation capabilities is that it can help municipal management cope with changes in the business environment and enhance performance management.

Supply chain management

SCM is a strategic tool for the management and enhancement of South Africa's procurement procedures, and it promotes the New Public Management paradigm through enhanced financial management (Makgari, 2019). Since its inception in 2003, training and workshops have been held in a variety of government departments. Despite the efforts made to equip practitioners with the necessary skills and knowledge, SCM execution remains a difficulty. Ambe and Maleka (2016; Jayashree, Srinivasan and Babu 2022) assert that for SCM to be

integrated successfully, accounting officers of SCM are required to follow the SCM policy. However, it is important for SCM practitioners to identify important areas of efficient management, such as the integration of ICT to assist in customer-supplier relationships operations. SCM has interests in social sustainability, however, there is still a lack of information for social evaluation, as well as a lack of indicators of social sustainability for evaluation (Fritz, Schöggli, and Baumgartner, 2016). Practitioners need support through ICT framework to maintain the capability of the supply chain (Narimisa, Kangarani-Faraheni, and Molla-Alizadeh-Zavardeni, 2019). According to Aman and Seuring (2022), SCM performance management is defined as the multiple measures of performance developed by the organisation to gauge the ability of supply chain to meet its long term and short-term goals. Communication strategies are one of the factors where the supply chain should be more effective in liaising with stakeholders. According to Selema and Govender (2016), for municipalities to achieve effective implementation of SCM compliance, investment in ICT is vital to manage and control the measures used to institute and ascertain adherence to legislation, regulation, and policies that govern SCM. The Monitoring and Evaluation framework emphasizes the importance of establishing ICT integration procedures that enhance effective quality control and compliance (Selema and Govender, 2016).

Information and communication technology (ICT)

ICT together with internet enabler has evolved to significantly impact organisational operations performance internally and externally (Charfeddine and Umlai 2023; Murray, Kim & Combs 2023). The capability of municipality to effectively integrate the relevant ICT to facilitate relevant, accurate and timely information sharing with both customer and suppliers within a service supply chain will significantly enhance relationship capability as well as the entire demand and order management operational cycle decision-making. Service quality, loyalty and community satisfaction are the mandate of any municipality of which ICT investment solutions plays significant role (Al-Khaffaf, and Abdellatif, 2011). ICT enhance reduction in operational cost through effective inventory control; enhance inventory visibility and transparency, reduce possible human errors and delays, improves customer and supplier experience, and improve overall operational planning (Cavaliere, Khan, Sundram, Jainani, Bagale, Chakravarthi, Regin, and Rajest, 2019; Kumar, Singh and Modgil 2020).

Supplier Relationship Management (SRM)

SRM is defined as the longstanding relationship that is used to leverage the strategic and operational capabilities of municipalities so that all involved can enjoy significant benefits (Gandhi, Shaikh and Sheorey 2017). A good supplier partnership or relationship encourages mutual planning and problem-solving efforts. Gandhi et al. (2017) investigated the effect of SRM on Supplier Chain performance (SCP). The findings revealed that successful SRM is directly correlated to a higher level of SCP. Furthermore, effective SRM, required, coordination between the supply chain partners allowing a seamless flow between the suppliers, customers, and the focal organisation. This allowed the right product being available at the right time, resulting in the enhancement of SC performance (Amoako-Gyampah, Boakye, Adaku and Famiyeh. 2018).

Customer Relationship Management (CRM)

CRM refers to the ability to create a longstanding relationship between municipalities and customers. It includes treatment of customer complaints and the ability to, overall, boost customer satisfaction (Chiguvi, Madondo and Dube 2019). The ability of a municipal to develop effective CRM assist the municipal in providing value to the customer, gaining the customer long-term loyalty and improved customer satisfaction. The ability of a municipal to maintain good CRM, attain valid and useful customer feedback is an important aspect of supply chain management capabilities (Alahmad, 2021). Sibonde and Dassah (2021) suggests that the ability of a municipal to respond to customer needs enhances the municipal ability to perform better. A solid customer relationship is directly proportional to the municipal ability to offer the right product and services to the customer.

Logistics and order management

Logistics management refers to the process of strategically managing acquisition, the movement and storage of materials, the cost fulfilment of orders, to ensure the effective flow of goods, services, and related information from the point of origin to the point of utilisation (Ambe 2016; Lukinskiy, Lukinskiy, Ivanov, Sokolov and Bazhina 2023). For this reason, the National Treasury stipulates that to ensure efficient and effective logistics operations, the development of an effective ICT system to coordinate order processing activities, transport management and contract administration is important (National Treasury,2013).

RESEARCH METHODOLOGY AND DESIGN

The current study is quantitative in nature; therefore, a positivist research paradigm was adopted. Positivists' approach to knowledge relies on interpreting data in an objective and realistic manner. In positivism, hypotheses are put forward in propositional or question form about the causal relationship between phenomena (Saunders, Lewis and Thornhill, 2015). Four municipalities in uThukela District namely (Inkosi Langalibalele Local Municipality, Okhahlamba Local Municipality, Alfred Duma Local Municipality and uThukela District Municipality), were selected using purposive sampling. According to Crossman (2020) in purposive sampling, participants are selected because they possess the characteristics of the research under investigation. In addition, a total number of 50 participants were selected purposively from the four selected municipalities in uThukela District. The relevant respondents included Municipal Managers; Performance Management Systems Managers (or officials tasked with performance-related responsibilities in cases where the position was vacant); Integrated Development Plan Managers; Supply Chain Management Practitioners; Human Resources Managers; and a subset of Section 57 managers with performance-based contracts who report directly to the Municipal Manager.

The measuring items used for this research was adapted from previous studies to develop a standard questionnaire that is comprised of closed ended questions. The data collection was self-administered to the respondents. All measurement items measuring the key research variables are designed on five-point Likert scale type, ranging from 1=strongly disagree to 5=strongly agree because it is easy to understand (Bradley, 2013). Section A consists of demographic background of the respondents; Section B to D measure the supplier and customer relationships, ICT, and order managment capabilities, which were adapted from

(Boon-itt, Wong. and Wong, 2017); Validity and reliability were measured using factor loadings and Cronbach's alpha value which should be greater than 0.76. The Statistical Package SMART PLS (3.0) was used to analyse quantitative data and the level of significance adopted for rejecting or retaining the stated hypotheses was $p \leq 0.05$.

ETHICAL CONSIDERATION

Ethical and safety issues are critical issues in research in order to collect credible data. The ethical commitment involves doing what is right and appropriate in engaging with participants, observes Creswell (2014). Approval letters from the university's Higher Degrees Committee and the University Ethics Committee approved the study. Permission was sought and granted from the selected four municipalities in uThukela District. Furthermore, respondents were informed that their names were not required and that all the data collected from them would be held in confidence. Participation in the research was completely voluntary, as respondents were informed that they could withdraw from the study at any time without penalty or being forced to provide reasons by the researcher.

RESULTS/FINDINGS

Biographical Characteristics of Participants

Based on the gender distribution more females ($n=37$; 54%) than male ($n=23$; 46%) participated in the research. This gives us a good gender equity, which generated rich information. Most of the respondents had undergraduate bachelor's degree (44%) and had 4-to-5-year experience (56%). The modal job title was SCM practitioners (44%) followed by SCM managers (32%), PMS practitioners made up (10%) and performance evaluators about (12%).

Table 1: Internal consistency of measurements

Research constructs	Indicators	Descriptive statistics		Reliability statistics			Validity statistics		
		Mean ($\bar{x}$)	SD	Alpha (α)	<i>Rho</i>	CR	AVE	$\sqrt{AVE}$	Factor loadings
Information and Communication Technology capability	ICT1	3.983	0.801	0.800	0.839	0.866	0.620	0.787	0.703
	ICT2	3.646	0.777						0.729
	ICT3	3.417	0.702						0.863
	ICT4	3.271	0.860						0.841

Customer relationship management capability	CRM1	3.375	0.949	0.903	0.910	0.933	0.778	0.882	0.764
	CRM 2	3.500	0.890						0.918
	CRM 3	3.292	0.978						0.901
	CRM 4	3.167	0.943						0.936
Order management capability	OPM1	3.958	0.815	0.752	0.778	0.858	0.669	0.818	0.564
	OPM 2	3.688	0.795						0.764
	OPM 3	3.339	0.770						0.795
	OPM 4	3.438	1.019						0.890
Supplier relationship capability	SRM1	3.646	0.968	0.814	0.826	0.876	0.639	0.799	0.762
	SRM 2	3.792	0.789						0.826
	SRM 3	3.583	0.731						0.829
	SRM 4	3.542	0.912						0.778

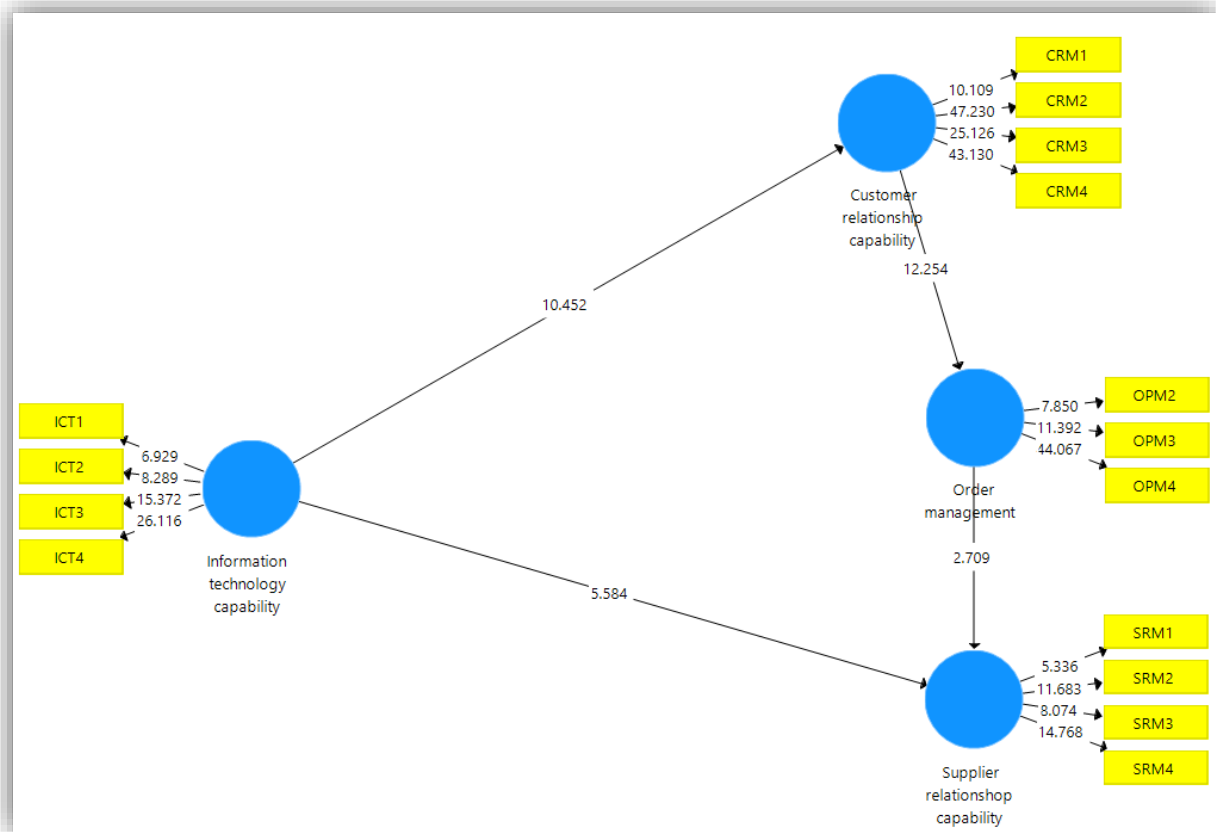
Note: Alpha (α) = Cronbach's alpha; Rho= Dillon-Goldstein's *rho*; CR=Composite reliability; AVE=Average variance extracted; 1= strongly disagree to 5= strongly agree.

Reliability is concerned with the degree of consistency, stability, and repeatability of the attributes to be measured (Ramadheena, Zhafari, and Aini, 2020). As shown in Table 1, three internal reliability statistics were used to determine the consistency level of the research variables. For example, the Cronbach's alpha value (α), spearman's Rho-A, composite reliability values (CR) were used and are all greater than 0.7 (Creswell, 2014).

Table 2: Discriminant validity

Constructs	Customer relationship capability	Information technology capability	Order management	Supplier relationship capability
Customer relationship capability	0.882			
Information technology capability	0.687	0.787		
Order management	0.734	0.542	0.818	
Supplier relationship capability	0.506	0.717	0.612	0.799
Note: Alpha (α) = Cronbach's alpha; Rho= Dillon-Goldstein's <i>rho</i> ; CR=Composite reliability; AVE=Average variance extracted; 1= strongly disagree to 5= strongly agree.				

Bootstrapping model



The validity statistics values also indicated the research measurement items measure what they are supposed to measure and therefore acceptable. This was done using the factors loadings values to determine the measurement items for each of the research constructs converge highly in their respected variable which should be above 0.5 (Martino, Napoli, Esposito, Prilleltensky & Arcidiacono 2018). As seen in the table 2 and figure 1, all items converged well ranging from 0.564 to 0.936 respectively. In addition, bootstrapping statistics was done to determine discriminant validity. The average variance extracted (AVE) values range from (0.620 to 0.778) and square root of average variance extracted ($\sqrt{\text{AVE}}$) values ranging from (0.787 to 0.882) are less than 1.0 and are greater than the inter-correlation matrix (Litson, Geiser, Burns and Servera 2017). This concludes the presence of discriminant validity among the research variables.

Figure 2: Path coefficients

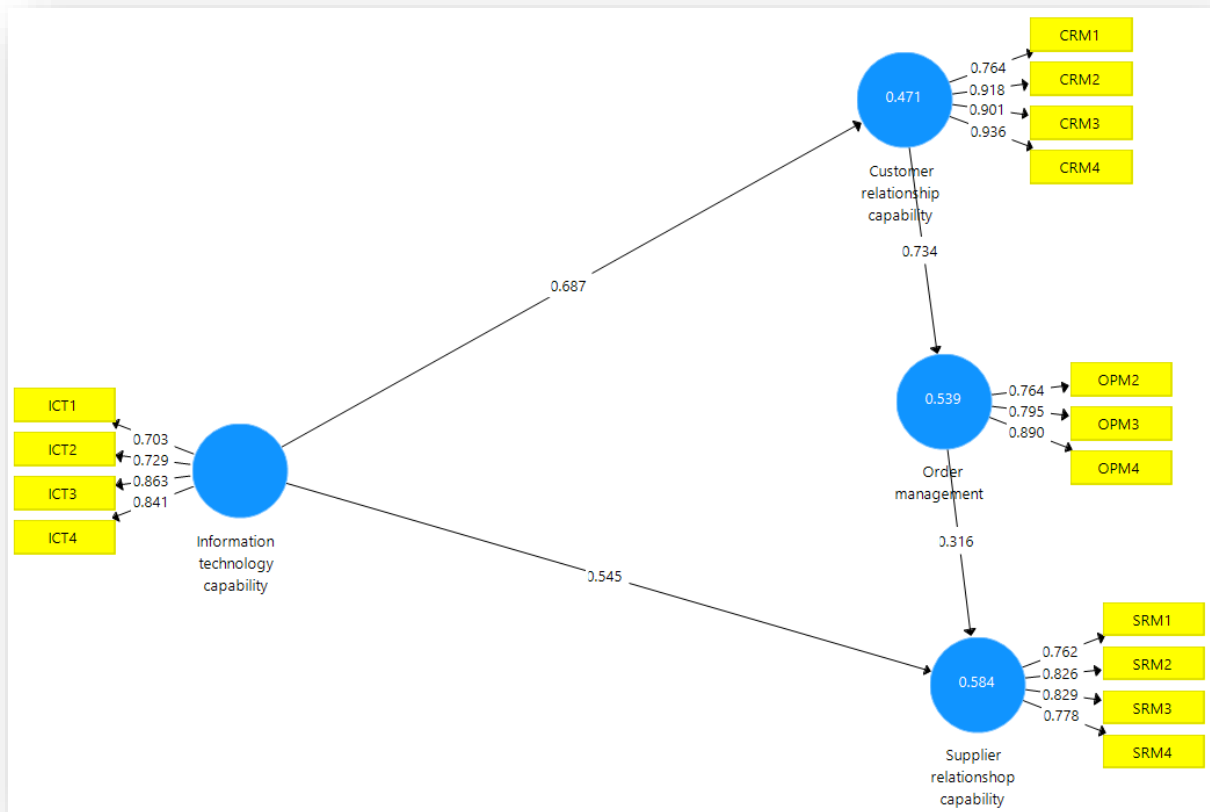


Table 3: Results of structural equation model analysis and significant level

Proposed relationship	path	Hypothesis	Path coefficient	T-statistics	P-value	Outcome
Information technology capability and customer relationship capability		H ₁	0.687	10.452	0.000	Supported
Information technology capability and supplier relationship capability		H ₂	0.545	5.584	0.000	Supported
Customer relationship capability and order management		H ₃	0.734	12.254	0.000	Supported
Order management and Supplier relationship capability		H ₄	0.316	2.709	0.007	Supported

The four hypothetical relationships proposed for the research are presented in Figure 2 and Table 3. The t-statistic values indicate the significant and insignificant level of the research variables. To achieve this, relationship value is expected to have a t-statistic above 1.96 and a p-value of ≤ 0.05 to indicate whether the hypothesis is rejected and supported (Garson, 2016). According to the statistical analysis, all four proposed relationships were statistically significant and accepted.

DISCUSSION OF FINDINGS

A review of the literature on the use of SCM capabilities in performance management revealed a paucity of studies at the municipal level. Several studies have used SCM capabilities to emphasise their ability to help municipalities with compliance. Eposi et al (2021) posited that most studies on compliance and failed SCM implementation in South African municipalities may be the result of an unskilled and inexperienced SCM workforce, which may therefore increase non-compliance among municipal managers. The aim of this research is to determine the impact of ICT capability on supply chain management capabilities within four municipalities in the uThukela District. Four hypotheses were statistically significant.

The relationships between ICT capability and CRM and SRC capability (**H1 & H2**) are significant at (path estimate estimate=0. 0.687; $p=0.000 < 0.05$) and (path estimate estimate = 0.545; $p=0.000 < 0.05$) respectively. These results indicate that the investment and integration of relevant ICT with uThukela municipalities will greatly and significantly enhance customer and supplier relationship capabilities. The importance of ICT has been greatly researched as an enabler, enabling efficiency and business performance in a more cost-effective manner. The municipality's ability to use new technology to transmit and quickly share relevant information with customer and supplier in service supply chain will enhance and improve information processing viability for effective decision-making capability. With this, non-compliance issues and accountability challenges will reduce significantly and thereby improving municipal overall supply chain quality. Therefore, municipal management need to invest in ICT capability framework to maintain supply chain operation performance (Narimisa, Kangarani-Faraheni, and Molla-Alizadeh-Zavardeni, 2019). According to the Dynamic capabilities theory ICT related capability serve as a driving force to incorporate processes that enable municipalities to sustain and improve performance management.

Figure 2 statistics, shows that higher level of ICT integration and implementation capability leads to higher significant level between CRM and OPM (**H3**) (path estimate estimate =0. 0.734; $p=0.000 < 0.05$) as well as OPM and SRM (**H4**) (path estimate estimate =0. 0.316; $p=0.007 < 0.05$). The mediating role of order management capability between customer and supplier relationship capability is important to note in this research. For example, ICT explains about 47 percent ($R^2=0.471$) of municipal customer relationship capability, which further explains up to 54 percent ($R^2=0.539$) and 58 percent explanatory power ($R^2=0.584$) of supplier relationship capability. Following the result trends, accurate and fast order processing service capabilities through the relevant ICT, in terms of order preparation, transmittal, entry, filling, and status reporting, not only maintain long-term and close relationships with selected supplier in service supply chain but also aid municipal management capability to focus on key supplier development to further enhance service quality, sourcing, supply planning and procurement performance. The findings are supported by Teece (2014) and Ambe (2016), state that ICT implementation helps integrate strategic management, supply chain management, and supplier development. Furthermore, Mnguni (2012) acknowledges that SRM capabilities consist of six elements that require a high level of ICT capability for successful implementation. These elements are, demand, acquisition, logistics, disposal, risk management, and performance evaluation. On the other hand, OPM which deals with the ability of municipalities to simplify the service order process by using relevant ICT to process service order fulfilment

correctly is perceived to have a huge effect on performance management. These results are consistent with those of Makgari (2019) that inefficient and unstable supply chain management leads to haphazard processing of orders, storage of material, and poor inventory management that ultimately negatively influence the management of municipalities.

CONCLUSION AND RECOMMENDATION FOR FUTURE RESEARCH

The aim of this research is to determine the impact of ICT capability on supply chain management capabilities within the uThukela District. The four hypotheses were statistically significant. The study was framed within the positivist research paradigm. This study involved fifty (n = 50) municipal practitioners in the uThukela district and utilised SMART PLS for data analysis. A five-point Likert scale questionnaire was used to collect data. This study employed the Dynamic capabilities theory which suggests that municipalities should renew the current SCM competencies to cope with developmental changes in the market environment. The findings of the study showed the significant impact of ICT capability on municipal SCM supply chain capabilities. With this, it is therefore recommended that municipal management review their ICT implementation and current competencies to cope and improve performance management. This should be done on a regular basis to improve on lifelong learning of ICT implementation culture among municipal practitioners. ICT implementation emphasis should be placed on CRM, OPM and SRM processes to improve performance among the municipalities. SRM and OPM can be internally improved by implementing creative new ICT to overcome disruptions as market environment changes. This goes for the existing or even developing SCM capabilities so the municipalities can serve their customers (community) in new innovative ways.

There is a need to study the whole spectrum of ICT implementation capabilities, on municipalities' performance management as this study only focused on three variables of SCM capabilities. Additionally, only identifying the variables of SCM implementation capabilities that affect performance management is not enough. The results of this study point to further the exploration of each level using a mixed-method approach. Interviews could have been used to probe an in-depth understanding of the respondent's ICT impact on SCM capabilities and performance management.

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Policies and regulations influencing the implementation of sustainable procurement practices in Gauteng state-owned enterprises

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ABSTRACT

Despite having good public policies that support sustainable procurement in South Africa, State-Owned Enterprises are lagging in the implementation of sustainable practices. The implementation is crucial since procurement is used as an instrument to achieve social, economic, and environmental objectives in South Africa. This article investigates policies and regulations influencing the implementation of sustainable procurement practices. This article employed a mixed-method research approach. The data was collected through a face-to-face interview using a semi-structured questionnaire. The findings revealed that the policies and regulations influencing sustainable procurement practices in state-owned enterprises, alone cannot assist in the achievement of South Africa's socio-economic objectives, but the focus should be given to barriers such as corruption, and poor implementation of public procurement policies to enable successful implementation of sustainable procurement. The article recommends the inclusion of the National Treasury to assist State-Owned Enterprises through the implementation national policy framework that will guide state-owned enterprises on sustainable procurement.

Keywords: sustainable procurement, sustainable procurement policies, legislative framework, state-owned enterprises

INTRODUCTION

The adoption of sustainable procurement practices has faced numerous challenges in state-owned enterprises such as regulatory, bureaucracy, and financial constraints. Public procurement spending amounts to 12% of the Gross Domestic Product (GDP) in developed nations and up to 30% of the in developing countries (United Nations Environment Programme, 2017). This demonstrates that making public procurement more effective, efficient, and sustainable could provide strategic value environmentally, socially, and economically (Dza, Chikwere & Dzandu, 2021:1). In this light, In developed countries such as the United States of America (US), sustainability has been incorporated into procurement policies (Islam & Siwar, 2013). For example, Ochieng, Oginda, and Oteki (2016), and Dawar and Oh (2017) noted that Japan's 2001 green procurement law compels all government bodies to develop and implement green purchasing policies.

However, in South Africa, sustainable procurement policies focus more on social and economic aspects, and less on environmental issues (Turley & Perera, 2014). The focus of the transformation drive across all spheres of government, including SOEs, has been on Preferential Procurement policies and Broad-based Black Economic Empowerment (B-BBEE) (Agyepong & Nhamo, 2016, Ambe, 2016), with provisions for opportunities to previously disadvantaged communities, job creation, localisation, and poverty alleviation. However, even

with the introduction of the Preferential Procurement Policies and the development and adoption of various policies to guide SP, there are serious issues in the SOEs, some of which have been identified as corruption, fronting, etc (Oyebanjo & Tengeh, 2020:105). Furthermore, numerous authors, Williams-Elegebe (2021), Setino and Ambe (2016), Agyepong & Nhamo, (2016) concurred that public procurement laws in SOEs are silent on sustainable procurement practices that include transformation and empowerment of previously disadvantaged sectors, and promotion of disabled suppliers and upcoming businesses, climate change. This shows that the PPPFA and its Regulations do not do enough to achieve the preference, empowerment, and socio-economic objectives prescribed in Section 217 (2) of the Constitution (National Treasury, 2015:13). These issues may be caused by the absence of a sustainable procurement policy framework that could lead to inconsistencies with the implementation of PPPFA, B-BBEE, and promotion of environmental practices in the SOEs environment (Ahmed, Ali, Memon & Hussain, 2020). Therefore, this article finds it important to investigate policies and regulations influencing the implementation of sustainable procurement practices in SOEs.

Although there are many studies on sustainable procurement in the public sector in SA, such as studies conducted by the Western Cape Government: Environmental Affairs and Development Planning (WCG EADP) (2021), Oyebanjo & Tengeh, (2020), Agyepong and Nhamo (2016), the Public Service Sector Training & Authority (2016), Turley and Perera (2014), and Hanks et al. (2008), there is a limited research on the policies and regulations influencing implementation of sustainable procurement, particularly in the SOEs environment. Some of the existing studies looked at SP practices in municipalities, SP in the private sector, SP in government departments, and SP policies in South Africa, but none of these studies has been conducted in the SOEs. Hence, this paper, investigates the extent to which policies and regulations influence the implementation of sustainable procurement practices in Gauteng SOEs. The following sections will present a literature review, research methodology, findings, and conclusion.

LITERATURE REVIEW

Sustainability of procurement practices in SOEs

Procurement in the SOEs environment is recognised as a policy tool for achieving social justice through preferential procurement policies that promote suppliers from previously disadvantaged groups (Setino & Ambe, 2016, Turley & Perera, 2014: 5). Despite, this transformation drive by SOEs, new market entrants, SMMEs and more specifically women-owned businesses find difficult to participate in public procurement business with SOEs (Williams-Elegebe, 2021, National Treasury 2015). Women-owned businesses only benefit between 1% and 6% of public procurement contracts (Williams-Elegebe, 2021). Beyond advancing the primary social objectives, public procurement in South Africa is also being leveraged towards employment generation and local manufacturing (Turley and Perera, 2014:5). Procurement practices are leveraged on numerous economic development policies such as the National Development Plan, the New Growth Path, and Industrial Policy with a view to supporting industrialisation, employment generation, and developing local suppliers (Setino & Ambe, 2016).

The implementation of environmental criteria is poor in the state-owned enterprise environment, much focus is on the social criteria with local content requirements aimed at promoting economic development (Mutangili, 2021:51). Quinot (2023:80) alluded that lack of environmental focus means that South Africa has a long way to go in terms of achieving sustainable public procurement. The sustainability of procurement in SOEs is managed and guided by the SCM framework to enhance government's objectives of maintaining uniformity in all state procurement, with its own SCM (Ngcamphalala & Ambe, 2016:1206). This means

that each SOE in South Africa has the ability to implement procurement practices that are more sustainable when considering the environmental, economic, and social impacts of goods, works, and services (the Western Cape Government: Environmental Affairs and Development Planning (WCG EADP) (2021).

Based on the above discussions, the strategic role of sustainable procurement in achieving the socio-economic development of South Africa is not fully recognised in SOEs. Furthermore, Quinot (2023:81) alluded that sustainable public procurement that would meaningfully incorporate economic, environmental, and social policy objectives, seems a far-off goal in South African procurement law. Therefore, The SA government and SOEs need to support sustainable procurement policies in order to save environmental, social, and economic issues as seen unabated (Oyebanjo & Tengeh, 2020:112).

The Legislative Framework in SOEs

The legislative environment in which the SOEs operate promotes sustainable procurement despite its numerous inconsistencies in achieving the socio-economic development of South Africa (Hanks, Davies, & Perera, 2008, NT, 2015, PSETA, 2016). The policies and regulations guiding sustainability of procurement practices include the following:

- **Constitution of the Republic of South Africa 1996:** The Constitution requires procurement of goods and services to be fair, equitable, competitive, and cost-effective while empowering previously disadvantaged groups. Quinot (2023:81) alluded that the current procurement law fails to achieve the requirement contained in section 217 of the constitution, namely that procurement must be conducted in a fair, transparent, competitive, and cost-effective manner. The current procurement environment is hardly fair or inclusive of women-owned businesses benefiting from public procurement contracts (Williams-Elegebe, 2021).
- **Preferential Procurement Policy Framework Act, 5 of 2000 (PPPFA):** The act promotes the enhancement and participation of historically disadvantaged individuals and the small, medium, and micro-enterprises in the public sector procurement system. National Treasury (2015), mentioned that PPPFA does not do enough to support local economic development, set-aside of procurement for designated previously disadvantaged communities. This shows that the PPPFA does not do enough to achieve the preference, empowerment, and socio-economic objectives prescribed in Section 217 (2) of the Constitution.
- **Green Paper on Public Sector Procurement, 1997:** The Green Paper on Public Sector Procurement was introduced for discussion in April 1997 for organs to develop a policy to influence vendors' behaviour to comply with all environmental legislation (COT, 2017).
- **Broad-based Black Economic Empowerment Act, No. 53 of 2003 (B-BBEE):** B-BBEE is for the economic upliftment of the broader society, including black citizens, coloureds, and Indians, through bringing about the socio-economic transformation which was previously overlooked (South Africa, BBEE Act, 2013). Despite this progress on BBEE, fronting, and fraud in BEE procurement are key impediments to contributing to an increasing poverty level in marginalised communities in South Africa (Shava, 2016).
- **Preferential Procurement Regulations, 2017:** The Preferential Procurement Regulations, 2017, are based on the three government objectives of socio-economic transformation, promotion of rural-owned businesses, cooperatives and township-owned enterprises, and local industrial development. Table 1.1 lists the legislative framework guiding sustainability of procurement practices in SOEs.

Table 1.1: The legislative framework guiding sustainability of procurement practices in SOEs

Policies/ Regulations	Effectiveness of policies and regulations on Sustainable procurement practices	Ineffectiveness of Policies and Regulations on Sustainable Procurement Practices
The Constitution of the Republic of South Africa	Section 217 (2) states that procurement may provide categories of preference; and protection or advancement of persons or categories of persons disadvantaged by unfair discrimination. This exemplifies the social principle of SP.	procurement practices fail to achieve this constitutional objective. The current procurement environment is hardly fair or inclusive of women-owned business to benefit from public procurement contracts.
PPPFA of 2000	Promotion of SMEs, Rural or women-owned businesses, Promotion of black-owned businesses, Promotion of youth-owned businesses, Employment generation.	PPPFA does not do enough to support local economic development, set-aside of procurement for designated previously disadvantaged communities.
Green Paper on South African Public Procurement	Requires suppliers to comply with the environmental standards.	
B-BBEE	Employment opportunities for black people Support of rural-owned business Promotion of black people to participate in the economy. Promotion of SMEs Employment generation	Fronting, and fraud in BEE procurement.
PPPFA, 2017	Promotes development of SMEs, Supports rural-owned businesses Promotes Local procurement Supports industrialisation.	

Based on the above discussions, the policies and regulations guiding the sustainability of procurement practices in SOEs were expected to benefit the previously disadvantaged

communities, SMEs and address environmental issues facing SA. However, this has not been the case, which led to the gap for this study.

RESEARCH OBJECTIVES

- To examine the extent to which policies and regulations influence the implementation of sustainable procurement practices in SOEs.
- To establish the participant's view on policies and regulations influencing sustainable procurement practices in SOEs
- To determine if there are any significant differences between schedule two and three SOEs regarding policies and regulations that influence the implementation of sustainable procurement practices.

RESEARCH METHODOLOGY

The research design of this article is descriptive and exploratory and makes use of a survey to provide an answer to the main research question which policies and regulations influence the implementation of SP practices in Gauteng SOEs? The researcher made use of a survey. A survey involves obtaining data on situations, occurrences, or events (Leedy & Ormrod, 2014). The mixed method approach was employed in response to the answer to the above objective because the article aimed to explore and gather an in-depth understanding of the different views of policies and regulations influencing SP in SOEs.

This choice has also been necessitated by the fact that there is limited information available on the policies and regulations influencing the implementation of SP practices. in Gauteng SOEs. The procedure was conducted using both qualitative and quantitative research methods over two phases. Phase 1 involved an in-depth literature review and phase 2 consisted of a semi-structured questionnaire using a five-point Likert scale was administered to 51 SCM professionals, with open-ended questions where respondents had to provide more clarity on their responses. The 51 SCM professionals were selected based on purposive sampling. The SCM professionals consisted of chief procurement officers, procurement managers, procurement supervisors, and procurement officers because of their involvement in specification development, evaluation, awarding of contracts, and policy development.

The researcher collected data personally to maintain trust with respondents, who have proven to be key leaders in ensuring that procurement achieves the socio-economic development goals of South Africa. The collected data was analysed using descriptive and inferential statistics through the Statistical Program for Social Sciences. Descriptive statistics were used to describe the main features of the data in quantitative terms and inferential were used to determine statistically significant differences. The qualitative data on open-ended responses were used to give more meaning to the respondents' views on policies and regulations influencing the implementation of SP practices in SOEs.

RESULTS/FINDINGS

Descriptive Statistics

This section presents the findings regarding descriptive statistics in SOEs. Table 1.2 below indicates the responses of the respondents as to policies and regulations influencing the implementation of SP practices in SOEs.

Table 1.2: Perceptions of respondents on the Policies and Regulations influencing SP practices.

Policy/Regulations	Mean	

	Statistic	Std. Error	Standard Deviation
Constitution of the Republic of South Africa, Act 108 of 1996	4.50	0.44	0.79
Preferential Procurement Policy Framework Act of 2000	4.79	0.44	0.50
Green paper on Public Sector Procurement, 1997	3.50	0.44	1.14
Broad-based Black Economic Empowerment Act 53 OF 2003.	4.71	0.44	0.53
Preferential Procurement Regulations, 2017.	4.82	0.44	0.39

Source: Researcher's own compilation

Table 1.2 above shows the mean and standard deviation of the policies and regulations influencing the implementation of SP practices. The results show that the respondents scored the highest mean scores on Preferential Procurement Regulations, 2017 (M=4.82; SD=0.39); followed by 'Preferential Procurement Policy Framework Act of 2000' with (M=4.79; SD=0.50), then followed by 'Broad-based Black Economic Empowerment Act 53 OF 2003 (M=4.71; SD=0.53). This was followed by the 'Constitution of the Republic of South Africa, Act 108 of 1996' with (M=4.50; SD=0.79). Lastly, the respondents scored the highest mean on 'Green paper on Public Sector Procurement, 1997' (M=3.50; SD=1.14). These findings are consistent with the literature; there is no single policy framework on SP guiding SOEs and other organs of the state in South Africa (Hanks *et al.*, 2008; Agyepong & Nhamo, 2016; COT 2017). Sections 217(2) of the Constitution, B-BBEE, and the Preferential Procurement Policies of 2000 and its regulations promote sustainable procurement's social aspects.

Reliability

This section presents the results related to the reliability of policies and regulations influencing the implementation of SP practices. Table 1.3 below shows the findings related to the reliability of the policies and regulations influencing the implementation SP practices.

TABLE 1.3: The Reliability of Policies and Regulations Influencing the Implementation of SP Practices

Reliability statistics		
Cronbach's alpha	Cronbach's alpha based on standardised items	N of items
0.668	0.755	5
Item-total statistics		

	Scale mean if item deleted	Scale variance if item deleted	Correlated item-total correlation	Squared multiple correlation	Cronbach's alpha if item deleted
Constitution of the Republic of South Africa, Act 108 of 1996.	17.80	3.56	0.65	0.63	0.50
Preferential Procurement Policy Framework Act of 2000.	17.59	4.37	0.59	0.60	0.56
Green paper on Public Sector Procurement, 1997.	18.84	3.58	0.28	0.25	0.77
Broad-based Black Economic Empowerment Act 53 OF 2003.	17.61	4.68	0.44	0.44	0.62
Preferential Procurement Regulations, 2017.	17.49	5.26	0.47	0.56	0.64

Source: Researcher's own compilation

Table 1.3 above shows that the policies and regulations influencing the implementation of SP practices had an internal consistency Cronbach's alpha coefficient of 0.755, which is above the recommended guideline of 0.70 (Saunders *et al.*, 2019).

The correlated item-total correlation showed that most items correlated were above 0.30, except the item correlated "Green paper on Public Sector Procurement, 1997" (0.28) which is below the recommended cut-off level (Pallant, 2016). Of the items on the scale, none of the items were dropped. The item-total statistics indicated the Cronbach's alpha would increase to 0.772 if the item 'Green paper on Public Sector Procurement, 1997' was to be deleted. This item was not excluded, and it was decided to keep this item.

Inferential Statistics

This section presents the results related to the inferential statistics of policies and regulations influencing the implementation of SP practices. Table 1.4 presents the findings of the independent samples *t*-test, which was performed to assess whether there was a significant difference between Schedules 2 and 3 SOEs regarding the policies and regulations influencing the implementation of SP practices. The hypotheses tested for the significant differences between Schedule 2 and 3 SOEs with regard to the policies and regulations influencing sustainable procurement practices as follows:

- **Null hypothesis:** There is no significant difference between Schedule 2 and Schedule 3 SOEs regarding policies and regulations influencing sustainable procurement practices.
- **Alternative hypothesis:** There is a significant difference between Schedule 2 and Schedule 3 SOEs regarding policies and regulations influencing sustainable procurement practices.

TABLE 1.4 Significant differences of SOEs schedules with regard to Policies and Regulations influencing the Implementation of SP Practices.

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Constitution of the Republic of South Africa, Act 108 of 1996	Equal variances assumed	0,01	0,94	0,06	48	0,95	0,02	0,367	-0,70	0,74
	Equal variances not assumed			0,06	6,39	0,95	0,02	0,36	-0,85	0,90
Preferential Procurement Policy Framework Act of 2000	Equal variances assumed	0,70	0,41	-0,40	48	0,69	-0,11	0,26	-0,64	0,42
	Equal variances not assumed			-0,55	8,59	0,59	-0,11	0,19	-0,54	0,33
Green paper on Public Sector Procurement, 1997	Equal variances assumed	3,74	0,06	-0,37	48	0,72	-0,19	0,52	-1,23	0,85
	Equal variances not assumed			-0,26	5,56	0,81	-0,19	0,73	-2,02	1,64
Broad-based Black Economic Empowerme	Equal variances assumed	0,97	0,33	-0,48	48	0,63	-0,13	0,27	-0,66	0,41

nt Act 53 OF 2003.	Equal variance s not assumed			- 0,67	8,69	0,52	-0,13	0,19	-0,57	0,31
Preferential Procurement Regulations, 2017.	Equal variance s assumed	0,01	0,93	0,05	48	0,96	0,01	0,16	-0,32	0,33
	Equal variance s not assumed			0,04	6,17	0,97	0,01	0,18	-0,42	0,43

Source: Researcher's own compilation

Regarding the policies and regulations influencing the implementation of SP practices, the results in Table 1.4 indicated that the assumption of equal variances was not assumed; therefore, the null hypothesis of equal variance assumed was rejected with a p-value < 0.05, indicating that the variance score of the Schedule 2 respondents is significantly different from Schedule 3 respondents.

The results of the analysis of the independent-sample t-test were conducted to compare the policies and regulations influencing the implementation of sustainable procurement practices scores for both Schedule 2 and 3 respondents. The results in Table 1.8 show that there is no significant difference in scores for Schedule 2 and Schedule 3 respondents.

Analysis of Responses from Open-Ended Questions

This section presents an analysis of responses to open-ended questions about policies and regulations influencing the implementation of SP practices. It emanated from the interviews that the key policies and regulations that guide sustainable procurement practices are: the Constitution of South Africa, Green Paper on Public Sector Procurement 1997, Preferential Procurement Regulations Act of 2017, Broad-Based Black Economic Empowerment Act of 2003, and the Preferential Procurement Policy Framework Act of 2000. There were mixed views on policies promoting sustainable procurement. Some respondents stated that policies have played a role in advancing the country's socio-economic objectives. Other respondents indicated that the policies had not made much progress in accelerating disadvantaged communities to participate in procurement. The respondents were categorised according to participant number, respondent number, and question (Example: P2.1/R5/ Q7.13).

“The constitution is important in ensuring fair and equitable opportunities for all businesses in-line with the constitution as well as ensuring that previously disadvantaged groups are given preference to promote broad-based economic empowerment. Also, protect the SA environment based on the goods we procure” (P4.3/R1/Q8.1).

“Our company uses BBB-EE policy to buy from small black businesses.” (P1.2/R6/ Q8.4).

“B-BBEE and PPPFA, enables the organization to empower the previously disadvantaged and address the inequality in the country. Though PPPFA is on price and B-BBEE for scoring, I feel that it sometimes misleading as some of the B-BBEE companies fail to deliver after being awarded the contract.” (P2.3/R7/ Q8.2, 8.4).

Some of the respondents indicated that policies had not made good progress in addressing the socio-economic challenges facing South Africa.

“These policies and regulations are not designed to promote upcoming business. I work in procurement. I won’t encourage anyone to enter into tendering business. It’s even worse for disabled suppliers. There was a time to develop suppliers in my organisation; before we started using PPPFA in 2013, we would set-aside contracts specifically for disabled suppliers, and we were doing well.” (P4.1/R1/Q8.2).

“B-BBEE and PPPFA are good policies, but their implementation is inferior. They are being tailored to benefit certain politicians and their families. Poor suppliers, it is difficult for them to get the business.” (P2.2/R2/Q8.2, 8.4).

“PPPFA and B-BBEE are not doing enough in protecting Black suppliers. Fronting is still a key challenge.” (P2.3/R6/Q8.2, 8.4).

“PPPFA policies do support the social and economic pillar of sustainable procurement practices. However, they contribute little to the environmental pillar.” (P2.2/R7/Q8.2, 8.5).

“The Preferential Procurement Policies are currently not focusing much on ensuring complete transformation and empowerment for the previously disadvantaged sector.” (P3.1/R7/Q8.2, 8.5).

Some respondents indicated that they know nothing about the Green Paper on Public Sector of 1997.

“I have never seen this document; I will rate number 2.” (P3.1/R2/Q8.3).

“Green paper rarely gets mentioned.” (P3.2/R5/Q8.3).

Some of the respondents highlighted that the Green Paper encourages them to buy from green suppliers

“Green paper encourages us to buy from suppliers who comply with the environmental standards.” (P3.2/R6/Q8.3).

“I think we procurement promote the green aspect of sustainability. We have environmental criteria in construction tenders.” (P1.2/R2/ Q8.3). Table 1.4 summarises the storyline on policies and regulations guiding sustainable procurement practices in SOEs, based on the open-ended questions.

Table 1.4: Policies and regulations influencing sustainable procurement practices in SOEs

Themes	Description of the effectiveness of policies and regulations on SP practices	Description of the Ineffectiveness of policies and regulations on SP practices
Constitution of the Republic of South Africa, Act 108 of 1996	These policies are essential in ensuring fair and equitable opportunities for all businesses in-line with the constitution. They ensure that previously disadvantaged groups are given preference to promote broad-based economic empowerment. Protect the SA environment based on the goods we procure. Constitution promotes fairness, transparency and enforces value for money.	
Preferential Procurement Policy Framework Act of 2000	Preferential Procurement Policies are significant in addressing past injustices. Promote social-economic of SP aspect and less on the environmental.	Implementation of PPPFA is poor. The Preferential Procurement Policies are currently not focusing much on ensuring complete transformation and empowerment for the previously disadvantaged sector.
Green Paper of 1997	Encourages buying from green suppliers. environmental criteria in construction tenders	Some respondents have no idea of this policy document.
Broad-based Black Economic Empowerment Act 53 OF 2003	BBB-EE policy supports buying from small black businesses.	Implementation of B-BBEE is poor. B-BBEE is a good policies, but its implementation is inferior. It is tailored to benefit certain politicians and their families.

Preferential Procurement Regulations, 2017.	PPPFA policies do support the social and economic pillar of sustainable procurement practices and less on the environment.	The Preferential Procurement Policies are currently not focusing much on ensuring complete transformation and empowerment for the previously disadvantaged sector.

Source: Researcher's own compilation

Based on the above views, it is evident that policies and regulations guiding sustainable procurement practices in the SOEs are faced with numerous issues in order to support South Africa's socio-economic development.

PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

From the above discussions, it is clear that policies and regulations guiding the implementation of SP practices in SOEs alone, will not help in addressing the socio-economic development of South Africa, the key focus should be given to barriers such as fronting, poor implementation of PPPFA, B-BBEE, etc. Therefore, for SOEs to enable successful implementation of SP practices, the National Treasury and key relevant stakeholders need to assist with addressing key issues associated with SP policies and also with the development of the SP national policy framework that will guide SOEs and other organs of the state on the implementation of SP. SP policy needs to be aligned with the SCM framework and training should be given to SCM practitioners on SP.

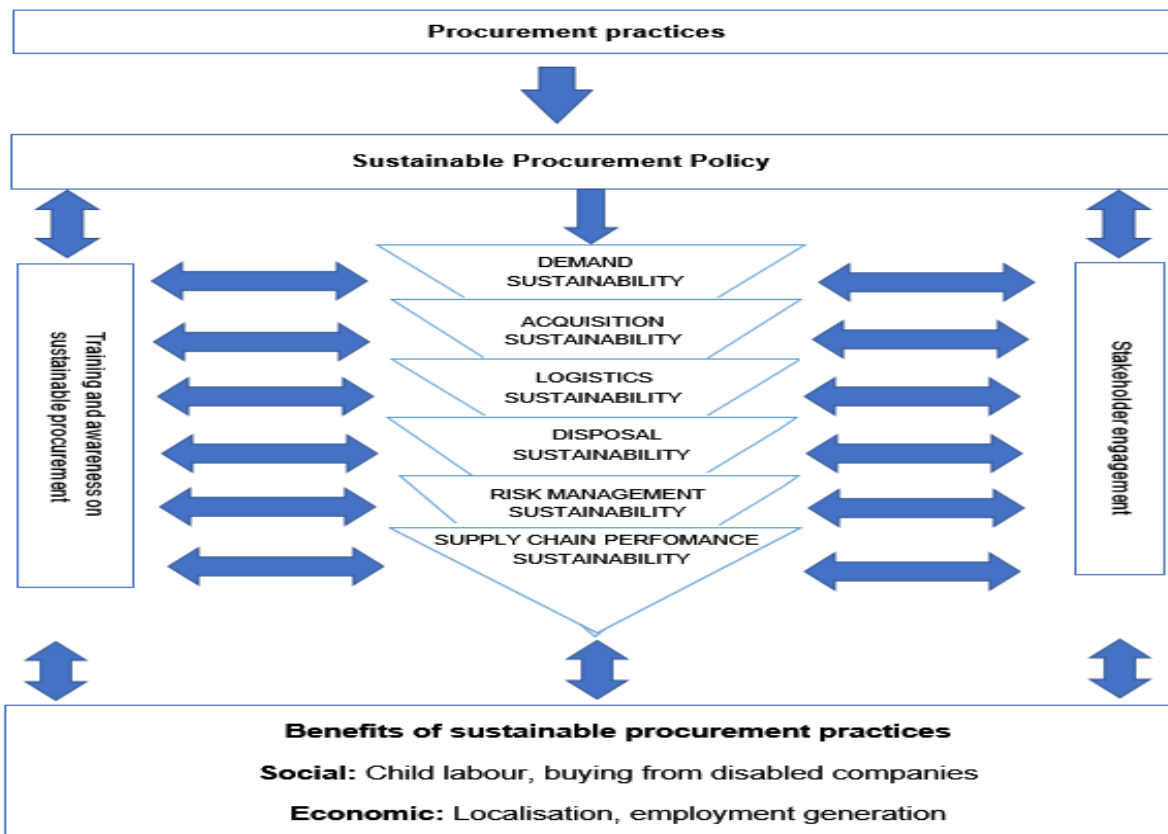


Figure 1.1: A recommended framework for enhancing the effective implementation of SP policy in SOEs.

CONCLUSION

This paper investigated the policies and regulations influencing the implementation of sustainable procurement practices in Gauteng SOEs. SP in SOEs has been used as an instrument to achieve South Africa's social, economic, and environmental objectives. Green Paper on Public Sector Procurement, 1997 encourages public procurement to promote environmental sustainability. Furthermore, SP practices are guided by Section 217(2) of the Constitution, B-BBEE, and the Preferential Procurement Policies of 2000 and its regulations which promote sustainable procurement's social and economic aspects such as buying from previously disadvantaged suppliers. However, there are challenges with the implementation of these policies and regulations. These challenges include fronting, poor implementation of PPPFA, BBB-EE, poor support for upcoming business, and less focus on the environmental aspect of SP. This shows that the PPPFA and its Regulations do not do enough to achieve the preference, empowerment, and socio-economic objectives prescribed in Section 217 (2) of the Constitution (National Treasury, 2015:13). These issues are caused by the absence of a National sustainable procurement policy framework.

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Sustainability in the supply chain management department in a South African municipality

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ABSTRACT

This study investigated sustainability in the supply chain management department in a South African municipality. The study aimed at examining the adopted Sustainable Supply Chain Management Practices (SSCMPs) as well as, to determine the challenges experienced by the municipality in the implementation of SSCMPs in the supply chain management department. The study used a qualitative research methodology and collected data were analysed using the five-step process of content analysis suggested by Terre Blanche, Durrheim and Kelly. The findings revealed that formalised internal processes transparency, compliance to standard, environmentally cautious, economic value were the main SSCMPs adopted by the municipality. The findings further suggest that political interferences, corruption, decentralisation of the municipal functions, and limited financial resources are the main challenges experienced by the municipality in the implementation of SSCMPs. The study recommends the revision of legislative prescription that grant political organisation authority to appoint municipality mayors and managers.

Keywords: Sustainability, Supply Chain Management, Practices, Challenges.

1. INTRODUCTION

Contemporary literature affirms that the concept of sustainability has been introduced to many fields including management, technology, and supply chain (SC) because of its importance on organisational performance (Mkhatshwa-Ngwenya & Khumalo, 2020; Ashcroft, 2021; Esfahbodi, Zhang & Watson, 2016). The concept has also been fully viewed from the business perspective (Esfahbodi *et al.*, 2016) because of the tremendous contributions documented from industrial activities. Islam, Karia, Fauzi and Soliman (2017) posit that sustainability is the use of resources to meet to present generation's needs without endangering future generation. Contemporary literature defines sustainable supply chain management (SSCM) as the process of managing the supply chain management (SCM) activities with consideration for environmental, economic, and social issues for enhancing long-term economic goals of any institution and its supply chains (Baah & Jin, 2019; Esfahbodi *et al.*, 2016). In accordance with the definition of sustainability, Mkhatshwa-Ngwenya and Khumalo (2020) advance that organisations that embrace sustainability in their practices gain competitive advantages and provide better services to their clients. The scholars further argue poor performance of most government institutions in South Africa such as municipalities is accredited to failure to acknowledge the impact of sustainability and the implementation of sustainable practices (SPs) on municipality supply chain performance. Hence, most municipalities are characterised by sequences of poor service delivery and strikes.

According to various legislative prescriptions pertaining to local government, the provision of basic services by municipalities to their respective communities is a constitutional obligation (Koma, 2016). For instance, Part B of Section 5 of the Constitution of the Republic of South Africa regarding functions falling concurrently within the national and provincial competence constituent units identify the provision of water, electricity, town and city planning, road and storm water drainage, waste management, emergency services for example, firefighting, licenses, fresh produce market, parks and recreation, security, libraries, and economic planning are basic services, inter alia, municipalities ought to provide to the communities (Sakalasooriya, 2021; Mkhathshwa-Ngwenya & Khumalo, 2020). However, lack of public confidence in municipalities' ability to provide and meet these basic community needs is evidenced by the spate of service delivery protests in most municipalities in South Africa over the years.

According to Section 195(1) of the 1996 Constitution, public service delivery should be guided by democratic values such as human dignity, the achievement of equality, the advancement of human rights and freedoms, non-racialism, and non-sexism. Meanwhile, the White Paper on Transforming Public Service Delivery (1997), White Paper on Local Government (1998) and the Municipal Systems Act 32 of 2000 highlight that SSCM practices in metropolitan municipality (such as this study) should be characterised by efficiency, accountability, transparency, and equity (Reddy, 2016). Sharma, Sengupta and Panja (2019) argued that municipalities are constitutionally mandated to drive transformation along a sustainable developmental trajectory in local economic development, poverty reduction, employment creation and service delivery terms. This implies that SCM systems are expected to promote and ensure SPs such as greater efficiency, transparency and accountability that promotes economic development. While accountability requires SCM officials to account and justify their actions, report on their decisions, and accept responsibility for planned outcomes, transparency and accountability requires the effectiveness and efficiency of municipal financial reporting, explicit supply chain contract processes and compliance with SCM laws and regulations (Sakalasooriya, 2021).

However, having SCM systems and policies in place that acknowledge the benefits of SPs, the execution and efficiency in terms of job creation, employment, poverty reduction and service delivery in South African metropolitan municipalities has been a serious call for concern over the past decade (Sharma et al., 2019; Centobelli, Cricelli, Cerchione & Esposito, 2021). The Auditor General South Africa (AGSA) (2022) annual report on municipalities functions iterate that accountability in municipal financial management and performance has been on a steady decline over the past ten years. One of the main contributors to this regression in municipal functions is the failure to develop, implement and monitor effective systems and processes of internal control and lack of capacity/skills, and the failure to properly adopt and implement SSCMPs. To add, municipal administrators and managers are often not held accountable for poor performance. Contemporary literature notes that it is a challenge for municipalities to adopt and implement SSCMPs when key players are not liable for their actions (Ashcroft, 2021; Centobelli et al., 2021; Sakalasooriya, 2021).

Furthermore, contemporary literature affirms that only municipalities that embrace and implement SSCPs can manage their resources efficiently and demonstrate accountability, transparency and fairness (Reddy, 2016; Mkhathshwa-Ngwenya & Khumalo, 2020; Ashcroft, 2021). Consistently, the AGSA (2022) concur that there is need to address sustainability issues that are currently faced by supply chains in municipalities such as poor implementation of preferential points and awarding of tenders, high unemployment, poverty, climate change, etcetera. Given the lack of empirical evidence from a qualitative perspective on SSCMPs in

South African municipalities according to extant literature (Weeratunge & Herath, 2017; Centobelli et al., 2021), the primary aim of this study is to investigate sustainability in the supply chain department in a South African metropolitan municipality. The following research objectives have been developed from the research aim:

- I. To examine the SSCMPs adopted by the municipality to provide basic services to the community.
- II. To investigate the challenges experience by the municipality in the implementation of SPs in the supply chain department.

2. DEFINITION OF CONCEPTS AND REVIEW OF RELATED LITERATURE

Islam et al. (2017) noted that sustainability as a concept entails development that meets present demands without risking future generations' ability to meet their own needs. Though sustainability issues arising from present day business environment have warranted most organisations to consider SP in their goals and policies, the above definition though widely accepted, does not really address key issues in present day industrial environment, making it quite open and ambiguous (Centobelli *et al.*, 2021). Hence, it remains a challenge to incorporate the concept of sustainability into supply chains operations. However, it is of paramount importance that managers of institutions as suggested by Weeratunge and Herath (2017) promote operational supply chain activities that achieve not only economic objectives, but also social and environmental goals as well. If so, then the above view by Weeratunge and Herath (2017) suggest that considering and implementing SSCMPs cannot be categorised as optional but obligatory for organisations as supported by Baah and Jin (2019).

From the above definition of SSCM, Esfahbodi et al. (2016) and Sakalasooriya (2021) propose that developing sustainable design strategies for the production and delivery of goods and services, making use of clean production methodologies and technologies thereby reducing raw materials remains critical. In addition, resources to reach low input, high output and low pollution, develop sustainable marketing which may lead to cost savings and enhance competitiveness have also been noted as effective strategies. Whereas Sakalasooriya, (2021) advances that, developing sustainable transportation systems that are environmentally friendly (such as using low carbon emission vehicles), and adopting sustainable purchasing strategies that lead to reduced waste and hazardous materials, all fall under SSCM activities. The sustainability of the foregoing activities heavily depends on the use of raw materials that are environmentally friendly such as materials that can be recycled or used for product packaging that are biodegradable.

Jing, Ismail, Wira & Shafiei, (2019) affirmed that the SSCM activities highlighted would be advantageous to municipalities in South Africa. For instance, environmental practices will help reduce environmental risks and pollution and increase environmental performance. Additionally, these can play as role on integrating suppliers in a participative decision-making process to protect brand image (Paul & Chowdhury, 2020). However, municipalities face a number of challenges in their efforts to adopt and implement SSCMPs. Paul and Chowdhury (2020) noted that the very high cost of environmental programs is one of the primary challenges most municipalities face in developing and implementing SSCMPs. Lack of management commitment and human resource according to Esfahbodi et al. (2016) impede municipalities efforts in developing SSCM strategies.

With the signing of the new Constitution of the Republic of South Africa in 1996, local government formally referred to as “municipality” are known as that sphere of government that

remains closest to the people of South Africa and plays a fundamental social function in providing basic services to the community (Ndevu & Muller, 2018). Reddy (2016) noted that municipalities are at the coalface of public service delivery and often the first point of contact between communities and government institutions. Municipalities are often referred to as grass-roots government because of their direct association with communities at a local level. This implies that the government expects the municipalities to serve their communities with basic service deliveries such as housing, electricity, sanitation and proper community roads.

Extant literature iterates that local government were initially established to provide the highlighted basic services to the communities in a sustainable manner in order to promote social and economic development (Ndevu & Muller, 2018; Reddy, 2016; Mkhathshwa-Ngwenya & Khumalo, 2020). Social development constitutes but is not limited to, communication, compliance, and supplier-development strategies, while economic development include the efficiency and effectiveness in the use of municipal resources. The promotion of both social and economic development leads to improved service delivery and better functioning of municipalities as noted by (Mkhathshwa-Ngwenya & Khumalo, 2020). However, the recent service delivery protests experienced in South Africa last year September 2022 are a clear signal that communities have lost confidence in the municipalities and are not entirely content with service delivery as evidenced by the series of service delivery protests. Consistently, Ndevu and Muller (2018) argued that the series of service delivery strikes has a negative impact on the overall economic growth of South Africa. Studies on original knowledge on SSCM of service delivery in the municipality is currently unavailable. It is against this backdrop this study seeks to investigate sustainability in the supply chain management of service delivery in a South African metropolitan municipality.

3. RESEARCH DESIGN, APPROACH AND METHOD

The National Treasury (2018) highlights that there are 278 municipalities in South Africa. Of the 278 municipalities, only 8 are metropolitan, 44 are district, and 226 are local municipalities. Within each district, there are between 4 to 6 municipalities falling under one district council. This study focused on one of the eight metropolitan municipalities given that they are the largest municipalities with the most resources. A qualitative research approach as supported by Collis and Hussey (2014) (specifically, interpretivistic research paradigm) was used to achieve the objectives of this study. Using a qualitative research approach This empowered the researchers to conduct an in-depth enquiry and interpret the phenomena on SSCM of service delivery in the municipality concerned. The municipality is one of the six largest metropolitan municipalities in South Africa with an annual gross domestic product (GDP) of more than US\$10bn (Statistic South Africa, 2022). Purposive sampling was used to identify the participants. The participants were mainly employees in the supply chain/procurement department of the municipality. After repeated phone calls, the researchers were told the supply chains/procurement department has a total of 17 employees. The basic criteria for selecting the respondents were based on their seniority and expert knowledge of SSCM. Though the researchers initially planned to interview all 17 employees, only 6 employees were finally interviewed as data saturation point was reached. Data saturation point is the point whereby further interviews would not contribute any new knowledge/ideas to the study.

Concerning research ethical clearance, ethics approval was first obtained from the post graduate ethics committee of the university. Then, a signed written permission was obtained from the gate keeper of the municipality to conduct the research and each participant signed a consent form before the commencement of interview. The participants were guaranteed anonymity, confidentiality and the possibility to withdraw from participating at any time.

3.1 Data collection

Due to the busy schedule of the participants, data for this study was collected from November 2022 to January 2023 using face-to-face in-depth interview (conducted in English). Each interview took about 45 to 60 minutes. The interview guide (research instrument) was divided into four sections. Section A was the demographical characteristics of participants. Sections B, C and D focused on SSCMPs, challenges experienced in the implementation of SP, and how SSCMPs contribute to municipal performance respectively. The data collected were transcribed, analysed, and then stored according to the ethical guidelines. The analysed data was also shared with the participants in order to enhance the credibility and legitimacy of the findings.

3.2 Data analysis

To analyse the collected qualitative data, the five-step process of content analysis namely, familiarisation and immersion (understanding the depth and diversity of the participants' views by reading and re-reading each transcribed text, and identification of recurrent themes), inducing themes (examining the themes in detail), coding (identifying and grouping aspects of the data that relate to the research problem), elaboration (exploring the themes more closely and detail) and, finally, interpretation and checking (examining the different themes for possible meaning and understanding) as explained by Terre Blanche, Durrheim and Kelly (2006) was used.

3.3 Qualitative research criteria and limitations

Reliability and validity are fundamental quality criteria in research, most especially in qualitative research. As such, the data analysis for this study was evaluated against the qualitative quality research criteria (Collis & Hussey 2014) of credibility (internal validity), confirmability (objectivity), dependability (reliability) and transferability (external validity). In addition, the credibility of every study establishes confidence (the value and believability) in the findings of the study and establishes trust with the research participants (Bengtsson, 2016). Thus, the researchers' immense knowledge of the subject and the participants' expertise contributed to the credibility and dependability of the research findings. As for transferability of the research findings, this study was conducted at a metropolitan municipality in the Eastern Cape Province. This means that the findings cannot be generalised to other metropolitan municipalities in other provinces in South Africa. Also, a transparent and detailed description of the analysis and research process backed by a sound research design and data analysis, contributed to the quality of the research findings.

4. RESEARC FINDINGS

In terms of the biographic details, of the 6 interviewed participants, four (66.67%) were males (1 contract controller, 1 logistic controller, 1 contract officer and 1 logistic officer) with 26, 17-, 4-, and 9years working experiences respectively; and two (33.33%) were females (a compliance officer and logistic officer) with 8- and 5-years working experiences respectively. In addition, five (83.33%) of the participants were black, and only one (16.67) was white. All the participants were South African and were graduates with a bachelor's degree. Furthermore, the majority of the male participants (three or 50%) were more than 40 years of age, while the two female participants (33.33%) were less than 40 but greater than 34 years of age. This study's findings, aligned with addressing the research objectives stated above, are presented in the following sections.

4.1 SSCMPs adopted by the municipality

According to the participants, SSCMPs are quite essential for the smooth functioning of the municipality. Table 1 below provides a summary of the perspectives of the participants on the SSCMPs adopted by the municipality. As highlighted in Table 1, the participants held that transparency, formalised internal process, compliance to standard, environmental cautiousness, and economic value were the most important adopted SSCMPs that help the supply chain department of the municipality to function well. This is backed by the highest frequency (n = 6) of mention, given that the frequency determines the level of importance of each SSCM practice.

Table 4.1: SSCMPs adopted by the municipality

Participants	SSCMPs adopted by the municipality	Frequency (n)
P ₁ ; P ₂ ; P ₃ ; P ₄ ; P ₅ ; P ₆	Transparency	6
P ₁ ; P ₂ ; P ₃ ; P ₄ ; P ₅ ; P ₆	Formalised internal processes	6
P ₁ ; P ₂ ; P ₃ ; P ₄ ; P ₅ ; P ₆	Compliance to standard	6
P ₁ ; P ₂ ; P ₃ ; P ₄ ; P ₅ ; P ₆	Environmental cautiousness	6
P ₁ ; P ₂ ; P ₃ ; P ₄ ; P ₅ ; P ₆	Economic value	6
P ₁ ; P ₂ ; P ₃ ; P ₅ ;	Socially responsible	4
P ₁ ; P ₂	Waste minimisation	2
P ₂	Risk minimisation	1

Author's own contribution

Apriliani and Khoirunurrofik (2020) advance that transparency (n = 6) with regards to the operations of every department is very important for the proper management of resources and the achievement of departmental or institutional goals. Participants P₃ explained that:

What we have done is to make sure that our processes are opened to every employee that works in that department or institution and everyone tries to follow the process accordingly. For instance, before we award a contract say above 10 million, we make sure that the advertisement is made public to give everyone a chance. Then the contract must pass through SPEC to the tender committee, to the litigation committee and of course regulated and approved by the national treasury.

Another participant (P₅) highlighted that:

Being transparent help to avoid the process of awarding tenders to friends or families who do not qualify and who might not deliver say the right quality based on the terms of the tender, even though this still happens sometimes.

Formalised internal process (n = 6) helps to build a work system where everyone is aware of his/her role in the supply chain department as one of the participants (P₄) pointed out that:

Formalising internal process is a way of ensuring that we all know our roles and responsibilities in the supply chain and procurement process, and it is easy for the boss to know who is not doing his/her work. Because of this system, I do not feel pressured at work when I know I have done all my work.

According to the International Standard Organisation (ISO) (2014), compliance to standards (n = 6) are fundamental guidelines and requirements that relate to supply chain processes. Participant P₂ noted that:

Before we procure any material, we make sure that the materials meet our standard and quality, and when we issue out contracts, we set standards that we expect the suppliers must adhere to and the quality of work we expect from the contractor or the person the tender was awarded to.

Lewis (2017) acknowledges that environmental cautiousness (n = 6) is one of the pillars of SSCM given that it is all about producing or making use of environmentally friendly produces and services. This was supported by participant P₅ who stated that:

Because of climate change we now take into consideration the materials we procure if the materials are environmentally friendly, and if the materials can be recircled. I must tell you that all this is clearly spelled out in the supply chain management handbook and the procurement guidelines and requirements document. The document is called sustainable supply chain-procurement guide.

According to the participants, economic value (n = 6) is important when it comes to procurement at the municipality because one of the mandates of the supply chain department is to support and promote local producers and suppliers. In view of this, participant P₃ advanced that:

When it comes to procurement of materials, or the award of contracts in the department, we give preference to accredited local producers and suppliers as a way of promoting local brands and products.

ISO (2014) emphasis that institutions like municipality mandated to serve their community should operate in a socially responsible (n = 4) manner by improving the happiness and well-being of the people. According to ISO, the success of institutions like municipalities is dependent on how well they manage their municipalities to achieve the triple-bottom line of social, environmental, and financial objectives. As for the social responsibility, one of the participants (P₁) explained that:

In our various departments in the supply chain like logistics, procurement, compliance, and others, we all make sure that we do not do business with suppliers or producers who are not legally recognized by law, companies that violate human rights, companies that have poor safety records, companies that have records of employees abuse and do not adhere to labour laws, and companies that are not certified to supply or produce the materials we want.

Another SSCMPs adopted by the municipality is waste minimisation (n =2). According to one of the participants, the fact that the municipality does not have enough financial resources, due diligence is first conducted to see which supplier or producer will deliver what the municipality wants to procure or contract at the most affordable cost as participant P₁ explained that:

Before we procure any material or issue out contract, we make sure that the supplier or the contractor to deliver what we want will be able to do so at the cost that we have budgeted for. But in case we want a particular contractor or supplier for a service, we approach the supplier or contractor and let him know that we will like him/her to do this service for us, but we are concerned because his/her price is higher than what we have budgeted. So, if the contractor or supplier can reduce his/her price to match our budgeted price, then we will give the contractor or supplier the contract because of the trust he/she has earned in the past for services rendered to us.

Finally, as risk is inherent in every business activity that is done, risk minimisation ($n = 1$) is the ability or process of avoiding or reducing a risk exposure to almost zero. Minimising risk according to a participant is a way of demonstrating one's risk averse attitude or carefulness.

4.2 Challenges experience by the municipality in the implementation of SSCM practices

This study also explored the challenges faced by the municipality in the implementation of SSCMPs. The participants' views on the challenges faced by the municipality in the implementation of SSCMPs are summarised in Table 2 below. As highlighted in Table 2, political interference and corruption are most critical challenges that hinder the municipality from providing basic services to the community and function well.

Table 2: Challenges experience by the municipalities

Participants	Challenges experience by the municipality in the implementation of SSCMPs	Frequencies (n)
P ₁ ; P ₂ ; P ₃ ; P ₄ ; P ₅ ; P ₆	Political interferences	6
P ₁ ; P ₂ ; P ₃ ; P ₄ ; P ₅ ; P ₆	Corruption	6
P ₁ ; P ₂ ; P ₄ ; P ₅ ; P ₆	Decentralisation of municipal function	5
P ₁ ; P ₂ ; P ₃ ; P ₄ ; P ₆	Limited financial resources	5
P ₁ ; P ₂ ; P ₃ ; P ₄	Load shedding	4
P ₁ ; P ₂ ; P ₄ ; P ₅	Lack of succession planning	3
P ₁ ; P ₂ ; P ₃	Lack of qualified personnels	3

Author's own contribution

According to the participants, political interferences ($n = 6$) emerged as the most serious challenge experienced by the municipality and it is the primary cause of the poor service delivery and performance of most municipalities in South Africa as participant P₂ explained that:

Some people are appointed here because of their political connection though they do not have the right experience and knowledge in the position they are appointed. So, what kind of services do you expect from people like that?

Another participant (P₄) noted that:

Our institution has become so politicized to the extent that we cannot even do our job without fear that you can be replaced at any time without any explanation and most of the time, the people appointed are senior manager or supervisor who is your boss. The person will make you feel as if you are working for him and not the municipality. So, if you do not work as the person instructs you to, then you can be replaced at any time.

The AGSA (2022) annual report on municipal functioning iterates that corruption is the primary reason why most municipalities in South Africa are failing to provide simple basic services to the communities as interviews with the participants also revealed. Participant P₅ noted that corruption in the form of lack of accountability and transparency is very common in municipalities given that the political arm of municipalities seriously interferes with the

administrative arm of the municipalities. These sentiments were also commensurate with P₂ who explained as follows:

In municipality, mayors are deployed and not employed. Also, municipality managers are voted in office by councillors of a party and not employed. So, mayors and municipality manager are not held accountable for mismanagement of public funds because some of the money is used to finance the party activities instead of providing basic services to the community.

Participant P₁ is of the view that:

Because of the political influence some contracts are awarded to individuals who do not deserve it. So, despite the procedure for awarding contracts in place, some people are somehow exempted from it because of their political connections like the saying, 'not all animals in the forest are equal. Some animals are more equal than others'.

Meanwhile, decentralisation of municipality function (n = 5) is the second most critical challenge pointed out by the participants. Alexandru and Guziejewska (2020) advance that municipalities face the problems of low capacity when they implement decentralisation as municipalities staff do not have the capabilities to create comprehensive development plans and make strategic decisions on their own as one participant (P₁) noted that:

Decentralisation is a big problem when it comes to municipality function. Our municipality cannot make certain decision or procure certain materials or produces that may cost more than a million without running it through the central government. So, what is our job here if we cannot make key decisions about the functioning of the municipality and we must wait for the central government to do it for us. Are we saying those of us working here are not capable of making such decision? How can we do our job when we do not have materials, or the materials are given to us late? We cannot think of making plans when we do not know what the central government is planning on their side. So, you cannot have a decentralised system and yet you expect the best outcome from it.

Limited financial resources just like decentralisation is also the second most critical challenge (n = 5) noted by the participants. According to Statistics South Africa (2022) local government (also known as municipalities) are the third largest recipient of grants and subsidies from the government after provincial government and extra-budgetary accounts and funds. However, Statistics South Africa (2022) affirm that municipalities still struggle to function efficiently and effectively due to insufficient budget as one of the participants (P₂) noted that:

I think budgetary issue is the main problem we are facing. For instance, we may want to implement a system, like say we want to be certified by ISO for instance. Getting such certification comes with money and that money we do not have to acquire such certification. So, budgetary constrain is a problem for us as we cannot plan for the future when we are not sure if the money will be available.

Surprisingly, load shedding (n = 4) appears to be the third most critical challenge cited by the participants that impacts the proper functioning of the municipality. According to Statistics South Africa (2022), load shedding has become a very critical factor that hampers the economy of South Africa as most businesses and institutions cannot function at full capacity. Meanwhile, lack of succession planning (n = 3) according to the participants is another challenge that hinders the proper functioning of the municipality as one of the participants (P₂) noted that:

Institutionally, there is no succession plan. For example, if I were in supply chain, given my age and experience over the years, if I were to leave now, that means the institution will be exposed. I will go away with my knowledge and experience in that department and the institution will suffer because there is no system in place that says if X is going to leave in the next few months or years, then Y should be in place to be coached to take over from X.

Lack of qualified personnels (n = 3) is another challenge the participants cited. Madumo (2016) highlighted that nepotism is one major challenge that municipalities in South Africa are facing because some municipalities recruit personnels who do not possess the appropriate qualifications and experience. In that regard, participant P₁ noted that:

You can be learned, you might be a doctor, or you might be a professor, but you cannot buy experience. So, we must take cognizance of the experience accumulated over the years. The person must be evaluated based on his/her knowledge and then consider his/her experience before being appointed to ensure that he/she can actually do the job. A doctor needs experience too to be able to do the job properly.

5. DISCUSION

Based on the findings reported in Section 4.1 ('The SSCMPs adopted by the municipality'), transparency is one of the fundamental SSCMPs adopted by the municipality that aims at ensuring the protection of the interest of the different stakeholders. Transparency according to Apriliani and Khoirunurrofik (2020) is an important ingredient for good governance in municipalities in terms of controlling, monitoring, and evaluating if the municipal managers are adhering to their roles and responsibilities and the efficient management of municipality resources. Apriliani and Khoirunurrofik (2020) add that the transparent disclosure requirements, just like formalising internal process, are fundamental for the purpose of municipalities effective internal controls. Furthermore, though formalisation of internal process and compliance to standard according to Sherf, Tangirala and Venkataramani (2019) leads to system stability, it also simplifies coordination and control.

The alignment and integration of the environmental, economic, and social considerations (also referred to as the triple bottom line) with crucial institutional processes, standards and measures allow institutions (such as municipalities) to improve the efficiency in the procurement and distribution of products or services in order to meet stakeholders' requirements and improve the performance, competitiveness, and resilience of the municipality (Yun, Yalcin, Hales, & Kwon, 2019). The alignment and integration of the triple bottom line also harmonises the SPs with the municipality's strategy, which leads to improved performance. Meanwhile, Michener (2019) iterates that improving budget transparency and the proper allocation and use of financial resources improves financial sustainability and minimises financial waste.

The findings presented under 'Challenges experienced by the municipality in the implementation of SPs', revealed that political interferences and corruption were the primary reasons behind the lack of public confidence and poor service delivery in the municipality as evidenced by the spate of service delivery protests over the past years (Ndevu & Muller 2018; Mkhathshwa-Ngwenya & Khumalo, 2020). Additionally, despite efforts to institute a level of transparency in the supply chains and procurement process, political influence and corruption has in the process helped certain individuals to embezzle municipality funds and go scot-free. Corruption in the form of awarding contracts to individuals because of their political affiliation

and the mismanagement of municipal funds has become a normal norm in the municipality today (Ref) This is despite the limited financial resources available for community projects, coupled with the poor state of the economy characterised by high unemployment, load shedding and economic stagnation as noted in the AGSA (2022) annual report on municipal functioning. Load shedding and economic stagnation has forced a lot of businesses to shut down, municipalities are operating at just 50% capacity, many professionals are migrating to other countries, and South Africa is no longer a favourable tourist hub (Statistics South Africa, 2022).

The decentralisation of municipal functions has only made matters worse as decisions and the execution of simple projects cannot be effected by those working in the municipality without endorsement from the treasury. Such red tape helps to demotivate employees in the municipality and foster political interference as those with high political connections will find it appealing to use their political influence to bypass the red tape. The fact that mayors and municipal managers are politically appointed, concerns have been raised that this leads to a weak strategy in terms of the succession planning and recruiting skilled employees to better serve and improve the performance of the municipality. For instance, as Bloom et al. (2019) concurred that employees with the right management skills are considered part of the asset of that institution as their skills cannot be copied or imitated as supported by the Resources Based Theory. Given that succession planning is a deliberate and systematic effort by any institution to ensure leadership continuity in major positions, lack of proper succession planning can have the direct effect of causing the collapse of the smooth functioning of an institution especially when highly skilled and experienced employees leave the institution (Kakuru, 2017).

6. CONCLUSION AND RECOMMENDATIONS

The findings of this study revealed that though there are systems and procedures in place that guide and advocate SPs in the municipality, the appointment of mayor and municipal managers with the administrative and political powers their office hold only help to compromise such systems and procedures for the effective application of SPs. This study thus recommends that the legislative prescription the grant political organisation to appoint municipality mayors and managers should be revised. Mayors and municipal managers should be elected by the community and given mandate, say for instance five years. Political organisations can then use their powers and influence to hold mayors and municipal managers accountable in case of embezzlement or mismanagement of public funds. Better still, special committees could be formed in parliament that compel mayors and municipal managers to give detail accounts, just like the budget speech of high value projects, say projects that cost from R10 million and above. Further to this, Auditor General should create audit offices at provincial level to oversee the auditing of municipalities at provincial levels on regular bases. This implies that, an auditor should be appointed to oversee the execution of high value projects on a daily basis. This will help improve service delivery, curb corruption, mismanagement of project funds and political interference. It will also help create job opportunities for young South Africans pursuing a career in auditing.

With global climate change concerns, municipalities are recommended to use environmentally friendly products and packaging that can be easily recycled in order to reduce environmental pollution. Municipalities are also recommended to prioritise local products and suppliers in order to boost local products development and local economic growth. Local economic growth will boost employment, thereby reducing the unemployment rate and reduce poverty level. Regular supply chains and procurement workshops and trainings should be organised by

senior municipal administrators in order to empower employees with the right knowledge and skills to be able to replace those that might leave the municipality for other lucrative opportunities or retire. With the rampant power cuts by Eskom, municipalities are recommended to invest in alternative power source such as solar panels should the municipality desires to operate at full capacity.

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The outcome of the discontinuation of cheques on bank reconciliation in South Africa

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ABSTRACT

A joint media statement by the South African Reserve Bank, the Banking Association of South Africa, the Financial Sector Conduct Authority, and the Payments Association of South Africa was recently published stating that cheque receipt or acceptance will effectively end on 31 December 2020. All stakeholders are urged to stop accepting or issuing cheques as a payment method. The purpose of the study is to examine the effect that the discontinuation of the usage of cheques has on bank reconciliation and the current teaching of bank reconciliations in the senior phase for Subject: Economic and Management Sciences. A qualitative literature review was carried out to gain insight into the bank reconciliation process to draw conclusions about the outcome of the cheque discontinuation on the bank reconciliation. Case studies were created to illustrate the outcome. The study found that the teaching of the bank reconciliation process will change to introduce new replacement source documents for digital payments, and this impacts the teaching of reconciling differences.

Keywords: bank reconciliation; internal control; accounting education; source documents

INTRODUCTION

The Financial Sector Conduct Authority (FSCA), South African Reserve Bank (SARB), Banking Association South Africa (BASA), and the Payments Association of South Africa (PASA) issued a mutual public statement that the use of cheques as a method of disbursement or compensation will no longer be accepted, commencing on 31 December 2020 (SARB, 2020). Cheque handling fundamentally presents various challenges; these challenges and complications influenced the decision to discontinue cheque acceptance. Cheques take a long time to process and can sometimes take longer than seven days to finally clear. With advances in technology and the lowering of societal ethical standards, cheques have become a major source of fraud. The bank and the cheque processing charges that relate to the usage of cheques became excessive and unaffordable. An increasing number of small businesses and large retailers restricted their acceptance of cheques as a payment modality. Due to the complicated and time-consuming nature of issuing cheques, the usage of them declined over time. Over time, many people became unfamiliar with cheques and had limited education on the correct preparation of this payment modality. There was limited fraud protection for the

consumer on the usage of cheques. The interbank cheque processing infrastructure had become outdated and could not keep up with the fast paced digital advances. Lastly, the 2020 Coronavirus pandemic exacerbated the declining usage and handling of cheques.

According to Thomas (2021), cheques were a very popular form of payment in South Africa. The use of cheques reached its peak during the 1990s and represented nearly 80% of the total value of payments that were not made in cash. The past several decades have been characterised by exponential advances on the technological front. These advances have changed and, on some levels, improved the manner in which people live and engage in business dealings (Sardana & Singhania, 2018). The development of and increased access to the Internet and internet-enabled cellular phones has caused a remarkable shift in the business practises and preferred methods of transacting of buyers, who have started using digital methods to communicate, do online shopping, and make use of innovative internet and technology applications (Alalwan, Dwivedi, Rana, & Algharabat, 2018; Alalwan, Baabdullah, Rana, Tamilmani, & Dwivedi, 2018). Consumers have shifted towards making use of electronic payment transactions as the technological infrastructure became more stable and reliable. Due to digital advances, cheque usage decreased and more businesses and individuals opted for online payment methods (Goel, Sahai, Vinaik, & Garg, 2019). Globally, the exponential increase in internet usage created the need for innovation on the front of money exchange. Consequently, electronic or digital payment methods were introduced to enable convenient and instantaneous payment transactions (Aladwani, 2001; Leong, Hew, Ooi, & Wei, 2020). These online payment methods include the use of debit and credit cards and electronic funds transfers. Consumer choice in alternative digital payment methods was further exacerbated by the global economic crises between 2008 and 2010 and, as mentioned before, the Coronavirus pandemic of 2020. The shift to alternative payment methods, such as digital methods, is considered to be more efficient and user-friendly.

In the consultation paper 'The phasing out of cheques in the national payment system', which was issued on 2 October 2020, the circumstances and specifics related to the cessation of cheques are outlined. The 31 December 2020 was the last day that South African banks accepted cheques to deposit money or to pay off. South African banks must send broad communications to their clients to prepare them for this transition from cheques (SARB, 2020). Additionally, financial institutions are expected to adequately prepare and instruct their clients about alternative digital payment methods available that have replaced cheques. Stakeholders, who used cheques, are requested to refrain from issuing and accepting cheques after 31 December 2020. They are encouraged to engage in communication with their respective banks to be educated on replacement electronic payment methods and raise any additional queries related to the termination of the circulation of cheques.

The 'Curriculum and assessment policy statement for accounting' issued by the Department of Basic Education stipulates the policy on curriculum and assessment in the school sector. According to the document, reconciliations, among other topics, carries a 50-60% weighting in the accounting curriculum, and learners should be able to prepare and analyse reconciling statements to the bank. As a stakeholder, the Department of Education (DoE) has an obligation to adjust the curriculum to incorporate the phasing out of cheques. In Annexure A: 'Guidance on the replacement of cheques with EFT' for the Subject: Economic and Management Sciences Curriculum and Assessment Policy Statement (EMS CAPS) in the Senior Phase – Grades 7-9 'the changes regarding cheques and other electronic payments are outlined. These changes regarding cheques and electronic payments then have an influence on the preparation of the bank reconciliation done in grades 11-12.

RESEARCH AIM AND OBJECTIVES

The purpose of the study is to examine the effect that the discontinuation of the usage of cheques has on bank reconciliation and the current teaching of bank reconciliations in the senior phase for Subject: Economic and Management Sciences.

METHODOLOGY

The study research design used existing data and case studies to evaluate the result of the discontinuation of cheques on bank reconciliation. A qualitative desk review was done accessing existing data as it provides the advantage of speed and economy (Clark, 2005, p. 2). To gather data on relevant books on the research topic, journal articles, dissertations, and regulatory publications will be reviewed.

The study will focus on obtaining background information on cheque discontinuation and its use and relevance to bank reconciliations. This will provide detailed explanations of the (1) source documents that are used when bank reconciliations are prepared, an overview of the (2) bank reconciliation process, and then finally draw a comparison between how the process will change with the discontinuation of cheques (3) by using an illustrative example (4). This change will impact the current teaching of bank reconciliations in the senior phase.

REVIEW OF THE LITERATURE

(1) Source documents

Explanation of the source documents

When an operating entity performs daily transactions, such as purchasing from suppliers or selling items to customers, the details of these transactions are first recorded on a document; this document is referred to as a source document. The essential details of the transaction, such as date, monetary amount, number of items, and purpose, can be found on the source document. As indicated by its name, source documents are used to initially capture transactions in the accounting process and are kept as evidence that the transaction occurred. In addition, source documents are filed to maintain an audit trail of all reported and published transactions (Daba, du Preez, Kupayi, Meijerink, & Wanjau, 2021; Kew & Watson, 2019).

Every source document is expected to have a distinctive identifier; the identifier can be numeric or alphanumeric. Allocating distinctive identifiers to source documents enables easy reference that can be used when these transactions are recorded for accounting purposes. When source documents are functional and user-friendly, they can reduce human errors and enhance the effectiveness of transaction recording (Daba et al., 2021; Kew & Watson, 2019).

The source document can be created in either paper or digital format. Automated accounting programmes are capable of generating electronic source documents and also have the functionality to accept and convert scanned source documents for digital use. When accounting software is used to record transactions, the relevant information pertaining to the

various transactions is captured through on-screen entries, and subsequently source documents are generated (Teru, Idoko, & Bello, 2019).

The first step in the accounting cycle or process is to identify and record transactions. The source document is therefore the starting point for recording accounting transactions. It contains the data required to identify, classify, and analyse the transaction.

A paper trail is created every time a company or business enters into a financial transaction. This transaction trail is the source document. If a business pays for repair material using its debit card, for example, the source document is the invoice for repair material along with the point-of-sale receipt.

It is recommended that the data from the source document are captured or recorded in the relevant accounting journal shortly after the occurrence of the transaction. Subsequently, it is recommended that the source documents are safely filed for possible retrieval when needed. Source documents, such as invoices and receipts, that relate to business income and expenses, have to be kept for a period of five years, as the South African Revenue Services might need to verify these supporting documents (Daba et al., 2021; Kew & Watson, 2019; Teru et al., 2019).

(2) Bank Reconciliation

Background to the Bank Reconciliation Process

The reconciliation of accounts that are contained in the Statement of Financial Position is a traditional and important accounting process. The reconciliation process is costly and time consuming, but according to Vorhies (2006), this accounting process remains one of the best forms of internal control measures that enable businesses to identify misstatements in the Statement of Financial Position accounts. A bank reconciliation is the process of agreeing the bank balance on the Statement of comprehensive income with the corresponding amount on the bank statement of a business. When this comparison is done, differences between the two statements will be identified to make amendments to the accounting records, correct any identified errors, and identify fraudulent transactions (Daba et al., 2021). According to a study conducted by Rahman & Anwar (2014: 101), the bank reconciliation process was identified to contribute to the prevention and detection of fraud. This study found that the bank reconciliation control process is the most practical and efficient method to counteract fraud.

Businesses perform monthly accounting procedures to obtain account balances that are used to compile financial statements. An example of one of these monthly procedures is the performance of a bank reconciliation. Daba et al. (2021) concluded that the purpose of bank reconciliation is to reconcile the bank account balance in the business books (internal account) with the balance presented on the bank statement (external source document). A bank statement is a copy of the business transactions with the bank from the bank's perspective. In contrast, the business maintains a bank account (cash book), which is a summary of its cash receipts and cash payments. Balances on the bank statement and the business bank account do not always correspond; therefore, the bank reconciliation process is used as an internal control measure to identify and correct any errors made by the bank or the business (Bench, 2021).

There are mainly three causes for the differences identified between the bank balance and the bank account. These differences are timing differences, unrecorded items, and errors. The

relevant timing differences that exist are outstanding deposits and outstanding cheques ('The importance of bank reconciliations', 2020). Outstanding deposits are cash receipts that are recorded in the cash book of the business, but have not yet been deposited into the business bank account of the business. Outstanding cheques are cheques issued by the business and therefore recorded in the bank account of the business but have not been presented for payment by the payee (Cloete & Marimuthu, 2019).

Steps in the bank reconciliation process

The available literature provides guidelines and recommended steps to be followed when preparing a bank reconciliation. These steps are as follows:

1. Use the cash receipt journal to identify and list all outstanding deposits.
2. List on the bank reconciliation, as a reconciliation item, any deposits that are in the business records and not on the bank statement.
3. Identify deposits that are listed as reconciling items in the bank reconciliation of the previous month, but are not found in the bank statement for the current month being reconciled.
4. Identify and list all cheques that are in transit and have not been encashed.
5. Use the cash payment journal and the bank statement to compare the listed cheques.
6. List on the bank reconciliation, as a reconciliation item, all cheques in the business records that are not found on the bank statement.
7. Analyse the bank reconciliation statement for the previous month to identify any cheques that do not appear in the bank statement for the current month.
8. Identify all bank debits or credits.
9. Analyse the bank statement to identify bank charges or interest credits that are not recorded in business records and record these appropriately as either a cash receipt or payment.
10. When differences are identified, process corrective entries in the cash receipts journal and the cash payments journal.
11. Compute the closing balances of the cash receipts journal and the cash payments journal.
12. Capture these closing balances in the bank reconciliation statement, as this is the total you are trying to reconcile (Daba et al., 2021; Holtzhausen & Bruwer, 2014).

When all of the above procedures have been performed, the bank reconciliation is prepared by capturing the closing balance of the business bank statement on bank reconciliation. The totals of all deposits are then calculated and added to the bank statement's closing balance. A similar process is performed for all outstanding cheques by deducting them from the subtotal. The amount then calculated should correspond to the journals. If it does not correspond, error(s) in the records will have to be located (Daba et al., 2021; Cloete & Marimuthu, 2019). The table below is an example of the format of a bank reconciliation

statement when the cheques were still in circulation (see Table 1). A fictional company, XYZ (Pty) Ltd, is used in the illustration.

TABLE 1

Illustrative example of the format of a bank reconciliation

Source: Kew and Watson. (2019).

Bank reconciliation statement of XYZ (Pty) Ltd on 28 February 2020		
	Debit	Credit
	Currency	Currency
Debit/Credit balance as per bank statement	In overdraft	Favourable
Outstanding deposits (not credited by the bank)		XX
Outstanding cheques (drawn and not presented at the bank)		
Cheque 1	XX	
Cheque 2	XX	
Correction of credit amount	XX	
Correction of the debit amount		XX
Balance as obtained from the bank account	Favourable	In overdraft
	XX	XX

(3) An Illustrative Example of the Bank Reconciliation Process Before and After the Discontinuation of Cheques

Example 1: An example of how bank reconciliations were performed when cheques were still an accepted form of payment is given below.

Company A had a credit balance of R12 284 in its bank statement for June and a debit bank account balance of R5 944.

Cheque no. 15 for R3 840 and no. 16 for R2 500 were issued by Company A to Company B and were not yet presented for payment by Company B at the end of June.

The bank reconciliation statement for Company A will look as follows as in June:

Details	Amount
Balance as per bank statement	R12 284
Less outstanding cheques:	
Cheque no. 15	(R3 840)
Cheque no. 16	(R2 500)
Balance as per bank account	R5 944

An example of how bank reconciliations will be affected when a payment is made via electronic fund transaction:

During June, Company A made an electronic fund payment of R2 500 to Company B that had not been cleared by the payees' bank by 30 June. This payment remained as pending on Company B's Internet banking. An EFT payment advice for R2 500 was used as a source document to capture the R2 500 payment in the Cash Payments Journal. Company A had a credit balance of R12 284 in its bank statement for June and a debit bank account balance of R12 284 in its accounting records.

The bank reconciliation statement for Company A will look as follows as in June:

Details	Amount
Balance as per bank statement	R12 500
No reconciling items	-
Balance as per bank account	R12 500

Based on the above example, it can be noted that the bank reconciliation statement for Company A (refer to the bank reconciliation above) will have no reconciling items. The electronic fund transaction payment is debited and reserved from its bank account as the electronic fund transaction payment is made electronically, and similarly, the bank account in the accounting records is credited as the electronic fund transaction is recorded as a cash payment.

If we assume, for the above example, that the R2 500 payment had not been cleared by Company B's bank by the end of June (if digital payments are made between different banks, there is usually an approximate delay of 24 hours, depending on the bank), the impact on the bank reconciliation will be similar, leaving no items to reconcile as Company B will only process the payment as soon as it reflects on their bank account.

(4) The Impact of the Discontinuation of Cheques

With the discontinuation of cheques, outstanding cheques are comparable to electronic fund payments made by the business, but have not yet been cleared by the receiving bank, and therefore are pending on the bank account of the business. These transactions can lead to differences between the general ledger bank account of the business and the bank statement of the business. These differences will be shown as reconciliation items when preparing the bank reconciliation is prepared ('The importance of bank reconciliations', 2020).

Following the changes announced by banks and other regulatory figures regarding the decision that cheques will no longer be accepted by banks at the end of December 2020, the following are guidelines for the transition period. These guidelines should be incorporated into the teaching of economic and management sciences (EMS).

In the Grade 8 and 9 curriculum, the following adjustments are prepared regarding the cash receipts in the cash receipts journal:

The existing transaction and terms in 2020 regarding the cash sales of trading stock, with the cash register roll as the source document, will be adjusted to the new transaction and terms in 2021 where the transaction changes from a cash sale to debit and credit card sales that are entered as cash sales, and the related source document is the cash register roll.

The existing transaction and terms in 2020 for the receiving of a cheque from a debtor to settle his debt, where the source document was a duplicate receipt, will change to the new transaction and terms in 2021 to the following:

- a) Debtors pay by electronic funds transfer, and the source document that is used will be the bank statement.
- b) Cash received from debtors in settlement of their accounts where the source document that is used will be a duplicate receipt.

The existing transaction and terms in 2020 for the receiving of the monthly rent per cheque, and the source document was the duplicate receipt, will adjust to the new transaction and terms in 2021 for the tenants paying rent by electronic fund transaction, and the source document that is used will be the bank statement.

Note: if the transaction scenario stipulates that cash was received from a tenant for rental income and cash was received from a debtor in settlement of his account, then the source document that is used will continue to be a duplicate receipt.

Explanation of the source documents regarding cash receipts

When sales are made using a cash register, the cash register roll (source document) is used to record these cash sales. Retail stores issue customers with a cash register slip or a receipt

slip when cash purchases are made. The cash register or till creates a duplicate or two copies of these slips. The one copy is used for the business records, and the other copy is normally in a removable format and is given to the customer as proof of their purchase. This cash register slip should be safeguarded, as this proves the purchase in the event that the product has to be returned or exchanged. The slip must be presented to the seller if the purchased product is faulty or if a reimbursement is required.

The following information can be identified in usual circumstances on a cash register or a receipt:

- The name of store where the purchase was made).
- The telephone number of the store where the purchase was made
- The date that the transaction occurred
- The name of the cashier
- The price of article(s) sold
- The subtotal of the cash transaction in monetary value)
- Whether VAT was levied on the sale and the VAT rate
- The total of the cash transaction including VAT
- The money that was tendered in order to make the payment
- The monetary amount of change that was given (Daba et al., 2021)

The duplicate receipt is issued to people or businesses for payments made to the business. This duplicate receipt is the proof that the payment was made by the purchaser. In a business environment, the duplicate receipt is also issued twice. One copy, the original, is issued to the client or purchaser, while the duplicate is kept by the business for their records to be used as a source document (Kew & Watson, 2019).

In the event that a business makes or receives a digital payment, the bank statement is used as the source document. The past few decades have been prevalent with constant advances in electronic payments and electronic payment systems. This can be ascribed to their unrivaled convenience and speed. An electronic payment or e-payments, are methods of settling accounts or bills and making transactions online by making use of an electronic channel. Popular methods for electronic payments include credit cards, debit cards, direct deposits (electronic fund transfers) and even virtual cards (O' Mahoney, Peirce & Tewari, 2001).

Adjustments for cash payments in the cash payments journal are as follows:

The payments made by cheque transaction where the source document was the cheque counterfoil will adjust to payments made by electronic fund transaction and the source document will be the electronic fund transaction payment (EFT) advice. The electronic fund transaction reference number is numbered and written in numerical order in the cash payments journal as the document number.

The cash cheque issued for payment of wages or to top-up the petty cash reserve transaction, where the source document was the cheque counterfoil, will be adjusted to cash withdrawal

made at the bank for the payment of wages or top-up of the petty cash reserve and the source document will be the bank statement. The cheque issued to the owner as a drawings transaction with the cheque counterfoil as source document will adjust to the cash withdrawal by the owner, and the source document will be the bank statement.

In transactions in which cheques are issued for salaries and wages, the cheque counterfoil was the source document. Going forward, this will adjust to companies paying salaries and wages through electronic fund transactions in workers' bank accounts. The source document will be the electronic fund transaction (EFT) payment advice, and the reference number allocated to the electronic fund transaction is captured in the cash payments journal as the document number (DBE, 2020).

Explanation of the source documents regarding cash payments

Cheque Counterfoil: A cheque is a written instruction to the bank that authorises the bank to pay a specified amount of money from a person's bank account to the person to whom the cheque was issued. A cheque is issued when a business makes a payment. This cheque is issued to the client, and the corresponding cheque counterfoil is used as the source document. This source document is replaced by the electronic fund transaction payment advice when salary payments are made to employees using an electronic fund transfer. The cheque counterfoil remains in the cheque book and contains the following data.

- 1) The drawee (name and branch of the bank that has to pay the cheque)
- 2) The date on which the cheque was written
- 3) The serial number of the cheque
- 4) The payee (person or firm to whom the money is payable)
- 5) Monetary amount of the cheque written in figures
- 6) Monetary amount of the cheque written in words ending with 'only'
- 7) The signature of the drawer (the person who is authorised to sign the cheque)
- 8) Bank account number of the business or person issuing the cheque
- 9) A written purpose for which payment is made
- 10) The name of the drawer, either an individual or a business (Daba et al.,2021; Kew & Watson, 2019.)

A bank statement is used as the source document when a business makes or receives an electronic payment. The past few decades have been prevalent with constant advances in electronic payments and electronic payment systems. This can be ascribed to their unrivaled convenience and speed. An electronic payment or e-payments are methods of settling accounts or bills and making transactions online by making use of an electronic channel. Popular methods for electronic payments include credit cards, debit cards, direct deposits (electronic fund transfers) and even virtual cards (O' Mahoney, Peirce & Tewari, 2001).

CONCLUSIONS

The use of an example illustrated how the teaching of the bank reconciliation process will be affected.

The teaching of bank reconciliation is guided by the use of various source documents. With the discontinuation of cheques, new source documents will have to be introduced during teaching, as these guide the preparation of the bank reconciliation. The study found that for cash receipts in the cash receipt journal, the duplicate receipt is replaced with the bank statement. When debit cards are used to make payments, these debit card transactions are recorded in the accounting records as cash payment transactions. Credit card transactions, a digital payment method, have also replaced cheque payments, and these credit card transactions are recorded in the accounting records as cash payment transactions. Similarly, debit and credit card transactions that are accepted as a payment method from customers are recorded in the accounting records as cash receipts. The cash register roll will remain the source document for these debit and credit card transactions. When payments are made by making use of electronic fund transfers, an electronic fund transaction payment advice or the bank statement, when the transaction relates to items such as wages and drawings, has replaced the cheque counterfoil as a source document for cash payments in the cash payments journal.

The study further found that when payments are made by making use of electronic or digital payment methods, such as debit card payments, credit card payments, and electronic fund transfers, these transactions will not lead to reconciling items when the bank reconciliation is prepared, as these transactions are now treated as cash transactions and entered as such in the cash payments journal. During the teaching of bank reconciliation, this concept should be thoroughly explained as it differs from cheque payment, which could cause timing delays and lead to reconciling items. The aforementioned therefore indicates that outstanding cheque payments, which are cheques that had not been presented for payment at a bank yet and, therefore, were reconciling items in the bank reconciliation statement, will no longer exist and are replaced by digital payment methods that do not lead to the occurrence of items that have to be reconciled in the bank reconciliation statement.

The study found that in order to maintain accurate accounting records, the source documents that are used for recording the daily accounting transactions will be impacted with the discontinuation of cheques. These new source documents and digital payment methods influence how the bank reconciliation process should be taught in the senior phase, going forward, as the new source documents for digital payments must be used when educators are teaching this module in the curriculum. The findings drew comparisons and highlighted how these source documents will differ in the future as digital payment methods have replaced the traditional cheque as a payment modality. Where the cheque counterfoil was previously used as the source document when payments were effected with the writing of a cheque, these payments are currently made using electronic methods. The cheque counterfoil will therefore be replaced as a source document, when bank reconciliations are prepared, by the cash register roll when debit card and credit card payments are made. Payments that are made with a debit and credit card will, for accounting purposes, be treated as if they were cash transactions and processed immediately in the cash payments journal, similarly to cash transactions. This new digital method of making sales and settling creditors impacts the existing teaching of this area in the senior phase curriculum, as digital payment methods were not exclusively covered prior to 2021.

The discontinuation of cheques has an impact on the reconciliation items that can be found when a bank reconciliation is prepared. Outstanding cheques will no longer be reconciling items, as these are replaced by electronic payments that are treated as cash transactions and entered into the cash payments journal immediately. As the electronic payment is immediately displayed on the bank statement and correspondingly entered as a cash payment in the accounting records, there are no payment items that cause a difference between the bank balance per the accounting records and the bank statement and therefore there are no payment items that have to be reconciled in the bank reconciliation.

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Technology-enhanced teaching strategies for leadership development: A qualitative exploration of RETAIL LEADERSHIP education

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ABSTRACT

Developing authentic leadership skills is crucial for students who aim to become successful leaders in their chosen fields. In South Africa, the retail industry employs a significant portion of the national workforce and has been facing challenges owing to technological innovation. The industry has long suffered from a skills gap at the management level, highlighting the need for authentic leadership skills. However, teaching authentic leadership can be difficult, as it requires a practical understanding of abstract concepts. This study aimed to explore the impact of technology-enhanced teaching strategies and activities on the leadership development of retail students in South Africa. Using an exploratory qualitative design, the study incorporated various technology-enhanced teaching strategies, including an audiobook, personal leadership journals, Daring Leadership assessments, and an online leadership simulation. The findings indicate that these teaching strategies and activities are effective in developing authentic leadership skills for future retail managers.

Keywords: authentic leadership development, retail industry, technology-enhanced teaching, pedagogy design, management skills gap.

1. BACKGROUND

The South African retail industry employs 21% of the nation's workforce and grapples with a significant skills gap at the managerial level (Buthelezi, 2020; Wholesale and Retail SETA, 2021). To grow the skills pool and foster their management potential, leadership development is crucial. Leadership development has become increasingly important in the retail industry, as rapid technological advancements and the recent Covid-19 pandemic have led to unprecedented challenges for businesses (Chatterjee, Chaudhuri and Vrontis, 2021; Tănase, 2021). This evolving landscape highlights the pressing need for strong leadership training programs that prepare future leaders with the necessary skills to navigate the complexities of the retail landscape.

Higher education institutions play a critical role in addressing this skills gap by developing management and leadership competencies in students (Hastings, Wall and Mantonya, 2018). However, teaching leadership can be difficult owing to the abstract nature of the subject matter, which might be challenging for students to grasp without relevant experience (Badibanga, 2019; Magano, Silva, Figueiredo, Vitória, Nogueira and Dinis, 2020). Therefore, the study

relies on active learning pedagogies, guided by constructivist learning theory, which requires the students to participate in constructing their own knowledge and skills (Aung, 2020). Leadership skills of managers are often described as “soft skills” and are defined in the context of a specific leadership style (Sadq, 2019). The literature portrays leadership as a multifaceted concept; therefore, this study looks at leadership through the lens of authentic leadership (Benmira and Agboola, 2021). Authentic leadership is characterised by purpose, self-awareness, relational transparency, internal moral perspective, and neutral processing (Crawford, Dawkins, Martin and Lewis, 2020).

This study aimed to reveal the usefulness of technology-enhanced teaching (TET) strategies and activities in the development of authentic leadership skills for retail students. More specifically, the study explored the following:

- The usefulness of TET strategies and activities, such as a leadership audiobook, personal journalling, personal leadership assessment, and leadership simulation, in the development of authentic leadership skills in higher education students.
- To explore the students’ application of their learned authentic leadership skills in their context.
- To make recommendations about TET strategies to develop authentic leadership skills in retail students.

A qualitative approach was followed owing to the exploratory nature of the study, and data were obtained from reflective essays submitted by the students in two selected retail modules. This research contributes to the development of management potential within the South African retail industry, with a concentrated focus on developing authentic leadership competencies in higher education students. The study provides important insights into how different pedagogical approaches could be used to develop authentic leadership skills. Furthermore, the study contributes to the broader literature on technology-enhanced teaching and pedagogy design in the context of leadership development.

2. THEORETICAL FRAMEWORK

The retail industry in South Africa has long faced a leadership and managerial skills gap, prompting the need for effective approaches to address the skills issue (Wholesale and Retail SETA, 2021). This study’s theoretical framework is grounded in the social constructivist perspective on learning, authentic leadership, and TET strategies. In light of this theoretical framework, the next section examines the literature on authentic leadership theory, constructivist learning theory, pedagogy, and TET.

2.1 Authentic leadership development

Authentic leadership theory draws on theories of self, identity, and authenticity and argues that people in organisations can effectively lead in a manner that honours their core values, beliefs, strengths, and weaknesses (Gardner, Coglisier, Davis and Dickens, 2011). Furthermore, authentic leadership is a positive leadership style that combines elements of transformational, ethical, and charismatic leadership that are grounded in self-awareness (Imam, Naqvi, Naqvi and Chambel, 2020). Authentic leadership development recognises that leadership skills development needs to align with individual personality and values to avoid training leaders to be inauthentic or ‘fake’ leaders, which could lead to mistrust, disrespect, and other negative consequences (Johnson, 2019). Thus, authentic leadership is associated with five dimensions: purpose with passion, values and behaviour, relationships and connectedness, consistency and self-discipline, and heart and compassion (Shahzad, Raja and Hashmi, 2021; Yavuz, 2020).

Authentic leaders are described as knowing themselves and consistently acting in alignment with their values. Therefore, fostering authentic leadership skills lies in students' self-awareness and understanding of who they are as part of the collective they seek to lead (Steffens, Wolyniec, Okimoto, Mols, Haslam and Kay, 2021). It could be argued that self-discovery and reflection should be foundational elements in developing authentic leadership skills. To support this, a study by Wiewiora and Kowalkiewicz (2019) found that authentic assessment and self-reflection improve students' comprehension of theories and leadership skills, while also helping them to develop a self-concept – a key aspect of authentic leadership. Considering the importance of self-discovery and reflection in developing authentic leadership skills, pedagogy and TET play a central role in facilitating such learning experiences.

2.2 Constructivist learning theory

Constructivist learning theory asserts that learning is an active process in which students construct their own understanding and knowledge through experiences and interactions with their environment (Aung, 2020). This approach encourages students to engage actively with information and learning materials, reflect on their experiences, and apply their knowledge to real-world situations (Sele, Nomleni and Sir, 2021). The central principle of constructivist learning is that learning is most effective when students are actively involved in the learning process, rather than being passive recipients of information (Xu and Shi, 2018).

In the context of this study, constructivist learning principles were applied through TET strategies such as the Daring Leadership assessments, leadership simulations, personal leadership journals, and reflective essays. These strategies promote active learning, critical thinking, and the application of leadership concepts in real-world retail scenarios (Cunningham, VanGronigen, Tucker and Young, 2019). This fosters a deeper understanding of the subject matter and enhances students' leadership development. However, it is essential to acknowledge the unique contributions and perspectives of each student while engaging in these TET strategies and activities, as traditional learning theories might not always take the individuality of students into account (Taqi, Utomo and Cahyono, 2021). Constructive learning theory emphasises the active participation of students in constructing their own knowledge, making it a valuable foundation for pedagogical approaches that prioritise student-centred and experiential learning.

2.3 Pedagogy and technology-enhanced teaching

'Pedagogy' refers to the methods, strategies, and practices that educators use to facilitate learning and create a conducive learning environment (Knowles, 1980). In other words, pedagogy considers the inter-relationships of the elements in the process of teaching and learning, and how these interactions affect the imparting of the knowledge defined in the outcomes of the curriculum (McLaughlan and Lodge, 2019). In the era of the 4th industrial revolution, the convergence of pedagogy and technology has facilitated numerous additional opportunities for education (Fawns, 2022).

'Technology-enhanced teaching' (TET) refers to the use of digital technologies and innovative pedagogical approaches to support and enhance student learning experiences (Serrano, Dea-Ayuela, Gonzalez-Burgos, Serrano-Gil and Lalatsa, 2019). TET encompasses a wide range of strategies, tools, and resources that enables the creation of engaging, interactive, and personalised learning environments that would better accommodate learners' diverse needs and preferences (Al-Ataby, 2020). In recent years, such teaching practices have gained prominence thanks to the expanding accessibility of digital technologies, the heightened awareness of the potential benefits of incorporating technology into education, and the escalating demand for graduates who possess digital expertise (Blau, Shamir-Inbal and Avdiel, 2020). Technology also has the potential to increase engagement, self-confidence, and self-regulation in an educational environment (Dunn and Kennedy, 2019).

Central to the concept of TET is the belief that technology can serve as a catalyst for pedagogical transformation, enabling educators to rethink traditional teaching methods and to develop more effective learning experiences for students (Oke and Fernandes, 2020). These approaches often emphasise active learning, problem-solving, and critical thinking, thereby fostering the development of higher-order cognitive skills and promoting a deeper understanding of course content (Salmon, 2019).

However, it is important to note that the successful integration of TET relies on thoughtful pedagogical design and an appropriate alignment with learning objectives (Blau *et al.*, 2020). The mere presence of technology does not guarantee improved learning outcomes; rather, it is the intentional and strategic use of technology to support and extend learning experiences that holds the potential to transform education. As such, TET should be grounded in evidence-based instructional principles and informed by an understanding of the diverse needs, expectations, and motivations of students (Alqahtani and Rajkhan, 2020; Regmi and Jones, 2020). Ultimately, the primary goal of TET is to leverage the advantages that technology offers to create meaningful, engaging, and effective learning experiences that prepare students for success in an increasingly complex and interconnected world (Serrano *et al.*, 2019).

Considering the potential benefits and challenges associated with TET, this study sought to investigate the impact of various TET strategies on the authentic leadership development skills of retail students in a South African context. The methodology section that follows outlines the research design and delves into the specific leadership teaching interventions employed in this study.

3. METHODOLOGY

The study employed an exploratory qualitative design, incorporating TET strategies such as an audiobook, personal leadership journals, Daring Leadership assessments, and an online leadership simulation. The data was collected through reflective essays, which were interpreted using the Leximancer version 5.0 software package.

3.1 Research design

This study made use of an exploratory qualitative design to investigate the impact of TET strategies and activities on retail students' leadership development. Qualitative research allows for an in-depth understanding of participants' experiences and perceptions, and the meanings they attach to those experiences (Creswell and Poth, 2018). An exploratory approach was deemed suitable for this study, as it aimed to discover new insights and generate ideas for further research in this relatively uncharted area (Yin, 2018). Building on the research design, the next section focuses on the leadership teaching interventions implemented in this study.

3.2 Leadership teaching environment and interventions

The teaching environment of the study could be described as e-learning (Regmi and Jones, 2020), facilitated through Blackboard, an online learning management system (LMS) that is widely used in higher education institutions (Alzahrani and Alhalafawy, 2023; Almoeather, 2020). The LMS enabled both synchronous and asynchronous learning experiences, allowing for real-time interaction between students and the lecturer during live sessions, as well as self-paced learning through various activities and resources available on the platform (González-Durán, Hernández-Sánchez, Cuevas-Rodríguez and López-Lambrano, 2020). By leveraging the capabilities of Blackboard, the study ensured a seamless and engaging learning experience for students while maintaining the necessary flexibility and adaptability in the teaching process. The LMS served as the foundation of the technology-assisted learning

approach, which was central to the study's objective of exploring the impact of TET strategies on leadership development.

The teaching interventions discussed in this study were delivered through the Blackboard LMS, which facilitated the implementation of various TET strategies and activities. Synchronous classes allowed students to engage in live discussions and collaborative activities, fostering a sense of community and promoting active learning (Lambie and Law, 2020). Asynchronous activities, such as self-directed learning activities, provided students with the opportunity to explore course content at their own pace, ensuring they had ample time to reflect on and internalise the material (Chen, Dobinson and Kent, 2020). The LMS served as the primary conduit for delivering the prescribed audiobook, personal journalling, personal leadership assessment, leadership simulation, and reflective essays, thereby enabling an immersive and dynamic learning environment that catered to the diverse needs of retail students.

3.2.1 Prescribed material: Audiobook

As the aim of the study was to explore the use of TET strategies and alternative pedagogical approaches, therefore, the prescribed materials deviated from the traditional academic approach. Instead, students were assigned the audiobook *Dare to lead* by Brené Brown, a widely recognised and influential book among those seeking to develop their leadership skills (Brown, 2018; Grant, 2019; Martin, 2020). The book presents a four-pillar framework for leadership development, emphasising vulnerability, living into our values, building trust, and learning to rise from setbacks. Throughout *Dare to lead*, students were guided through practical strategies that helped them to develop their leadership skills and tackle the challenges they might face.

The audiobook version of *Dare to lead* offers several benefits, for example, listening to an audiobook is convenient; also the engaging narration by the author herself helps the students to connect with the content on a deeper level (Tattersall Wallin, 2021). Further, the 'Dare to lead' hub, served as a valuable resource for the students to explore and reflect on the concepts presented in the book.

3.2.2 Online personal leadership journal

Reflective journalling is a valuable strategy for developing higher-order thinking skills such as critical thinking, clinical reasoning, and expert judgment (Jarvis and Baloyi, 2020), all which are essential for leadership development. Journalling can help students to reflect on their learning to improve their understanding, reduce errors, and build their skills (Chang, 2019), all of which are important for effective leadership (Shields and Hesbol, 2020).

The online personal leadership journal guided the students' leadership development journey as they progressed through the prescribed audiobook, *Dare to lead*. To facilitate a meaningful reflection process, students were provided with several prompts designed to guide their introspection. This journal provided a private space for students to reflect on the concepts and ideas presented in the audiobook, allowing them to connect these insights to their personal experiences and leadership aspirations. Students were encouraged to share their journal entries with the module lecturer to receive feedback and support, ensuring that the journalling

process remained a personal and introspective experience, while still allowing for guidance and mentorship from the lecturer.

3.2.3 Online Daring Leadership assessment

During the module, the students completed the online Daring Leadership assessment to help them gain insights into their leadership strengths and areas for growth. The Daring Leadership assessment is a self-assessment tool designed to help individuals reflect on their leadership qualities, identify areas for growth, and improve their overall leadership skills. The online assessment is based on the research and teachings of the author of the prescribed audiobook, *Dare to lead*, and is free of charge on the author's website. Upon completing the assessment, students instantly received personalised feedback, and the results were neither stored nor shared with any other parties. Consequently, the outcomes of these assessments are not included in the results of this study; however, the students utilised their results in their journalling and reflective essay.

3.2.4 Online leadership simulation

In this study, students who were enrolled for the practical retail module participated in an online leadership simulation focused on change management. The process began with the students watching a video of the story 'Who moved my cheese?' by Johnson (1999), followed by facilitated discussion, reflection, and personal identification with characters' responses to change.

Then students were then divided into teams that competed in identifying the best approach to address each of the four zones associated with resistance to change – the comfort zone, the fear zone, the habit zone, and the analysis paralysis zone – with theoretical input provided after each zone. The teams reviewed and debated 18 decision cards, selecting the best action to move someone from a specific zone; in the process, they had to keep track of their primary resource, time. The winning team was the one with the most time remaining at the end of the exercise.

The simulation methodology used in this study is based on discovery learning, using inquiry-based constructivist learning theory (Simamora and Saragih, 2019). The simulation involves reflection on pre-existing assumptions, making choices, discovering their outcomes, and facilitating better choices in subsequent rounds. The simulation also employs theoretical input to enhance the understanding and application of concepts related to change, including Gleicher's change formula, Kotter's eight-step change process, Duhigg's insights on the power of habits, and Covey's circle of control (Pataki and Pádár, 2020; Covey, 1992). These elements collectively aims provide students with a better understanding of themselves and their leadership skills.

The next section of this study discusses the sampling method used to select the participants for the study.

3.2 Sampling method

The selected higher education institution admits a relatively modest number of students to its advanced retail modules each year, therefore, a census sampling method was employed in this study. The population size of the study was 16 students who submitted reflective essays and all were included in the research (Naing, 2003). By using a census approach, the study ensured that the entire population of interest was represented, allowing for an in-depth exploration of the students' perspectives and experiences in relation to the TET strategies and activities.

3.3 Research instrument

The primary data collection instrument used in this study was a set of reflective essays written by the students enrolled in the retailing modules. The reflective essays were guided by a series of open-ended questions designed to encourage students to engage with the course material, reflect on their experiences with the TET strategies and activities, and evaluate their own leadership development in the context of the retail industry.

These open-ended questions were formulated to elicit students' thoughts on their experiences with the leadership training interventions, their understanding of leadership concepts, and their perception of their own leadership styles and practices. These questions aimed to explore students' initial perceptions of leadership; changes in their understanding of leadership throughout the module; self-discoveries in relation to the personal leadership journal, the leadership training interventions, and the Daring Leadership assessment; and the impact of these experiences on their daily activities and long-term thinking and behaviour in relation to leadership. In addition, the questions prompted students to describe their overall learning experience in the module, covering various aspects such as the audiobook, the personal leadership journal, the leadership training interventions, and the Daring Leadership assessment.

By using reflective essays guided by open-ended questions, the study allowed for a rich and in-depth exploration of students' perspectives and experiences, providing valuable insights into the impact of TET strategies on authentic leadership development in the retail industry (Wiewiora and Kowalkiewicz, 2019).

3.4 Data collection

Before initiating the data collection process, ethical clearance was obtained from the College of Business and Economics Ethics Committee under the ethics number 2022SCiiS026. This clearance ensured that the study adhered to ethical guidelines and protected the rights and privacy of the participants. The module assignments with reflective essays were collected from the students at the end of the semester after obtaining their informed consent. The collected data were anonymised to ensure the confidentiality of the participants and to encourage open and honest responses.

3.5 Data analysis

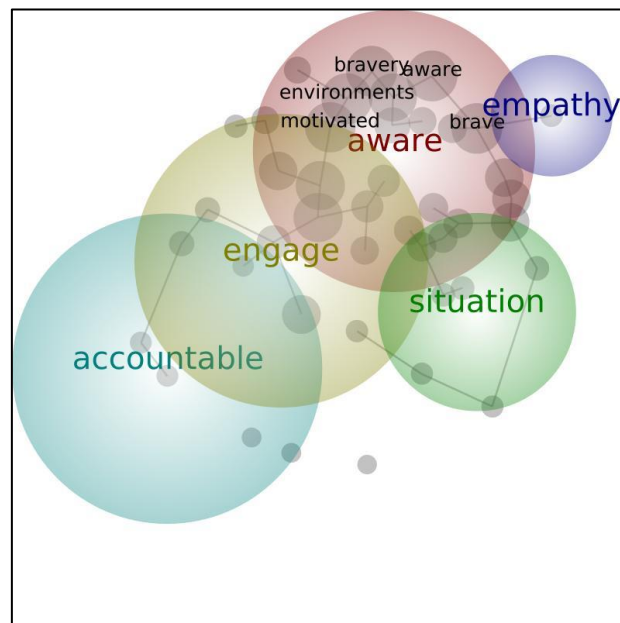
Usually, thematic analysis techniques are employed to analyse qualitative data, as proposed by Braun and Clarke (2006). This study employed the Leximancer version 5.0 software package to analyse the textual data obtained from the students' reflective essays. Leximancer is text-mining software that uses a combination of techniques, including a Bayesian machine-learning technique. The software categorises data thematically and semantically by identifying and displaying the relatedness between various concepts in the text, thereby adding semantic meaning to the data. It also generates a thesaurus of words associated with each concept, which facilitates interpretation of its thematic meaning (Wilk, Soutar and Harrigan, 2019). The main advantage of Leximancer is its ability to mitigate analytical biases stemming from preconceived notions of data during collection; Leximancer enables stable and reproducible findings, thus enhancing the analyses (Lemon and Hayes, 2020; Hardwood, Gapp and Stewart, 2015).

The study's findings, represented in a conceptual map, illustrate the prevalence and relationships of concepts, with closely related concepts appearing near or overlapping each other. Additionally, prominent themes are highlighted in red on a heat map, while less connected themes are in purple

4. RESULTS AND DISCUSSION

Figure 1 displays the conceptual map produced through Leximancer analysis, revealing five distinct themes that were identified from the examination of the text data.

FIGURE 1: Conceptual map depicting identified reflective themes



Source: Leximancer analysis output

The study revealed the following themes, from most to least prominent: *aware*, *engage*, *accountable*, *situation*, and *empathy*. The main theme *aware* overlaps with the themes *engage*, *situation*, and *empathy*. In addition, *engage* overlaps with *accountable* and *situation*. This overlap suggests a semantic relationship between themes, implying that, in addition to analysing each theme, these overlapping themes should be interpreted to understand the meaning within the overlap. The largest overlap in this case is seen between *engage* and *accountable*, which serves as an indication that these two themes have the strongest semantic relationship.

4.1 Aware

Aware – in other words, becoming conscious – was the largest theme in the reflective essays by the students in the study. The thesaurus of words that relates to ‘aware’ included words such as attitude, motivated, environment, brave, belief, anxiety, and belonging, which made it clear that the students gained insights about themselves by doing deep reflection. These insights related to their personal leadership development – for example, in statements such as “A survey conducted by Bene Brown stimulated me to know more about myself...”. Another student became aware that they struggled with boundaries by stating: “...but also noticed that struggling with setting boundaries with people is nothing new for me, as when I do set boundaries, I find myself compromising those boundaries depending on certain situations”. A third student said: “I am even more aware now that I should not be afraid to rumble with vulnerability as it will only make me a better person...”. The literature supports these findings, as authentic leadership is grounded in self-awareness (Steffens *et al.*, 2021; Johnson, 2019). It is clear that the study successfully achieved the first aim of exploring the usefulness of TET strategies in developing authentic leaderships skills in students, particularly with self-awareness as a cornerstone of authentic leadership coming out as the dominant theme in the data.

Understanding the overlap between *aware* and *engaged* revealed that a large portion of the comments on awareness was related to how students enjoyed engaging with the activities and prescribed materials in the module. The engagement was driven by a desire for self-improvement in developing authentic leadership skills, as highlighted in a similar study conducted by Wiewiora and Kowalkiewicz (2019). Two statements that supported this were: “My learning was very fun and insightful, doing the simulation on a different topic that is very important ... done wonders for my thinking ...”; and “In conclusion, after this amazing book this was a wake-up call...”.

4.2 Engage

As mentioned above, its large overlap with the dominant theme *aware* suggests that *engage* was a shared reflection among the students. A review of the thesaurus indicates comments relating to meaning, excitement, decisions, and simulation, suggesting that the students reflected on their engagement with the module-prescribed material and activities and found ways to implement their learnings. The comments included: “My daily activities changed after this module because I adjusted my lifestyle by improving my communication skills towards everyone, trusting suitable people, started giving people a chance to listen to understand them and I carry a good attitude”; “I have made a few long-term changes in my life after this module as I am really motivated to be a better person and be able to serve people in this world as a great leader”. Engagement and the application of learning is central to constructivist learning theory (Aung, 2020), and this finding is also in line with TET’s ability to increase engagement

(Dun and Kennedy, 2019). Thus the study's second aim of exploring the practical application of the acquired leadership abilities was also accomplished.

4.3 Accountable

Through the reflections, the third theme, *accountable*, becomes evident in statements such as these: "I am very dependable"; "I am accountable"; "As for being accountable and reliable those are two things I am very good at and pride myself with them as it helps keep my relationships (personal, work, family, friends) healthy". This continued to support the students' greater awareness of themselves and their engagement with and application of the authentic leadership lessons the module intended to teach. Melo, Martins and Pereira (2020) confirm that the literature provides evidence of a connection between leadership and accountability.

4.4 Situation

The fourth theme, *situation*, further supports the application of the leadership skills learned in the modules with statements such as this: "I do know that at times I feel vulnerable when faced with a situation in which I am required to decide for the whole work team and that triggers fear which then makes one even more vulnerable". In constructivist learning theory, learners are expected to participate actively, engage with their environment, and reflect on their own experiences as a means of constructing their own learning (Sele *et al.*, 2021).

4.5 Empathy

The final theme that was revealed in the reflective essays was *empathy*, evident in statements such as: "Brene's book has also taught me that approaching conversations with empathy and kindness makes difficult uncomfortable conversations easier"; and "The understanding that empathy is the inverse of shame is a new concept for me...". Authentic leadership also requires understanding others in to build trust and relationships (Shahzad *et al.*, 2021; Yavuz, 2020).

5. RECCOMENDATION AND CONCLUSION

The final aim of the study was to make recommendations on TET strategies for developing authentic leadership skills in retail students. Based on the findings of the study, the following recommendations are made. Firstly, given that the literature identifies self-awareness as the cornerstone of authentic leadership (Steffens *et al.*, 2021; Johnson, 2019), it's suggested that TET strategies emphasise cultivating self-awareness in students. This recommendation aligns with the findings, as self-awareness emerged as the prevailing theme in the students' reflective essays. In addition, students expressed the view that engagement with the module materials and activities led to increased motivation and self-improvement, suggesting that experiential teaching approaches such as simulation-based activities might be useful to stimulate active learning of authentic leadership skills. Second, the study's findings suggest that TET strategies also focus on the practical application of learned leadership skills. This is supported by the theme of *accountable*, which emerged in the reflective essays, indicating that students gained a sense of accountability and reliability through the module. This suggests that teaching strategies incorporate opportunities for students to practise and apply learned skills in real-world settings.

However, it is important to acknowledge the limitations of this study. The sample size was relatively small and limited to one specific population, which might limit the generalisability of the findings. In addition, the study relied on self-reported data, which can be subject to bias or inaccuracies. Future research could address these limitations by using larger and more diverse samples and objective measures of leadership skills. Such research could also explore the efficacy of different TET strategies and how they could be tailored to different student populations.

Overall, this study contributes to the growing body of research on technology-centred pedagogies, in addition to providing insights into developing authentic leadership skills in retail students. The study explores the efficacy of technology-enhanced teaching (TET) strategies, revealing their capacity to develop management potential and mould genuine leaders. The findings suggest that teaching strategies that emphasise self-awareness, practical application, and empathy can be effective in developing authentic leadership skills, which are increasingly important in today's complex and rapidly changing business environment. By analysing themes from student reflections on learning activities enabled by TET approaches, such as leadership audiobooks, personal journalling, and leadership simulations, the study offers insights into how these future leaders assimilate and apply their leadership insights in a practical setting. Furthermore, this research suggests that TET methods could be effectively used to help narrow the management gap in the retail industry.

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Identifying critical factors influencing the effectiveness of technology in teaching and learning in higher education during the Covid-19 pandemic: a systematic literature review

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ABSTRACT

Covid-19 pandemic was reported in 2019 and was declared a global pandemic in 2020. This impacted public spaces and learning institutions, among other organisations. During this time, lecturers and students were confronted with multiple challenges, such as the unavailability of resources and internet connectivity issues. This research employed the Systematic Literature Review approach through collective evidence on the findings of the existing literature on the effectiveness of technology and to determine how it was used to enhance teaching and learning during the pandemic. The findings of this study identified that lecturers lack adequate skills, knowledge and support and are reluctant to use technology. In contrast, students were confronted with a lack of adequate internet connection. This research suggests that practising technology daily could enhance skills and knowledge, promote a positive attitude, and boost the users' confidence (lecturers and students).

Keywords: Teaching and Learning; Covid-19 Pandemic; Technology; Higher Education

INTRODUCTION AND BACKGROUND

The outbreak of the Coronavirus disease 2019 (Covid-19) brought the world to a standstill. As a result, the government introduced containment and mitigation measures such as social distancing and isolation to curb the spread of the virus (Soni et al., 2020; Kamysbayeva et al., 2021). The education sector was not immune to this global tragedy (Xiang et al., 2020). Thus, Higher Education Institutions (HEIs) were forced to implement new regulations that enabled lecturers and students to adapt to the changes presented by this new way of life (Rashid & Yadav, 2020). To ensure that the demands of the students were met, HEIs had to resort to e-Learning (Kamysbayeva et al., 2021). Alipio (2020) describes e-Learning as utilising technology to access the curriculum externally. This teaching and learning method involves using various technological tools, such as YouTube, mobile apps, websites, learning portals, video conferencing, Google Meet, Facebook and Zoom (Shahzad et al., 2021). In this regard, technology has become the most critical factor in the education sector. It is regarded as the most reliant instrument to achieve educational goals and developments and as a communication platform (Adarkwah, 2021).

Covid-19 impacted education systems globally, with over 1.6 billion students affected by school closures at the height of the pandemic (UNESCO, 2021). Considering that the reliance on technology for teaching and learning was a response to the emergency alerts of the Covid-19 pandemic, HEIs were faced with enormous challenges, such as choosing the relevant tools to implement; providing adequate training to lecturers; and offering students the necessary support and resources, such as laptops and data to ensure that they participate in the teaching and learning effectively (Rashid & Yadav, 2020). Furthermore, according to Rashid and Yadav (2020), students located in less developed communities struggled with affording internet connections, self-discipline, and lacked adequate support from parents, while on the other hand, lecturers were pressured with the responsibilities of offering good development content online, setting online-based assessments which in turn resulted in stress and depression (Hakim et al., 2020).

Consequently, some students were mandated to use their cell phones to stream online to attend classes as they did not have proper devices such as laptops or desktops, which resulted in poor functionality as the cell phone did not give them the same benefits they would have attained through a laptop (Chang & Fang, 2020; Sari & Nayir, 2020); thus, negatively impacting their performance (Adedoyin & Soykan, 2023). Moreover, the implementation of online learning in developing countries could not be efficiently conducive because of the poor network infrastructure (Firdoussi et al., 2020; Wen & Hua, 2020), limited Information Technology skilled personnel, variant cultures, digital readiness, and low digital literacy were some of the upgrades that needed to be made to foster teaching and learning (Aung & Khaing, 2016).

Nevertheless, it can be argued that e-Learning is a great initiative since it could provide students with benefits, such as flexible studying patterns, improved student engagement, saving on financial costs, and ensuring that the content provided to students is up to date. Additionally, online learning is found to be another way that could be used to encourage students to be more responsible and independent in their schoolwork. However, the effectiveness of technology in teaching and learning during the pandemic has been a topic of debate, with concerns raised about the effect on students' learning experiences and the quality of education. Technology that is user-friendly and easy to navigate can enhance students' learning experience, while poorly designed technology may impede their learning (Chen et al., 2020). The quality of digital content is also critical, as it can affect students' engagement and motivation in the learning process (Laurillard, 2020). Considering how technology has impacted teaching and learning in higher education and the proposed opportunities of e-Learning, the phenomenon has become the centre of interest for many researchers.

Therefore, following the recommendation made by Mhlanga and Moloi (2020), the purpose of this article is to provide in-depth knowledge on the critical factors influencing the effectiveness of technology used in higher education teaching and learning during the Covid-19 pandemic through the Systematic Literature Review (SLR) approach.

RESEARCH PROBLEM

The Covid-19 pandemic significantly impacted higher education teaching and learning worldwide. It resulted in the closure of physical institutions, social distancing measures were implemented, and there was a need to ensure the safety of learners and educators (Godber & Atkins, 2021). This further forced institutions to embrace online and hybrid teaching and learning approaches at different levels (Hodges et al., 2020). However, technology was crucial

during the crisis in ensuring that education continued. For instance, schools used online platforms to conduct virtual classrooms, share information, and interact with students. While the use of technology in higher education is not new, the pandemic hastened its adoption by compelling HEIs to embrace online teaching and learning strategies, with technology significantly contributing to maintaining educational continuity (Du Plessis et al., 2022). As a result, it is crucial to consider the effectiveness of technology in higher education for teaching and learning during the Covid-19 pandemic.

Although technology has been beneficial in facilitating remote learning, its effectiveness in enhancing learning outcomes has been a subject of debate (Alqurashi, 2021). Several studies investigated the effectiveness of technology in higher education teaching and learning during the pandemic and identified various factors that influence its effectiveness. However, literature is speckled. Thus, a comprehensive synthesis of the findings is necessary to inform teaching practices. Therefore, through SLR, this research aims to identify the critical factors that influenced the effectiveness of technology in higher education teaching and learning during the Covid-19 pandemic.

RESEARCH QUESTIONS

- Which key elements influence the efficiency of technology in higher education teaching and learning during the Covid-19 pandemic?
- What challenges does the Covid-19 pandemic present in using technology in teaching and learning in higher education?

RESEARCH APPROACH

The SLR methodology was used for this investigation. The literature review was conducted according to the Preferred Reporting Items for Systematic Reviews (PRISMA) criteria. Regarding the time frame, the literature analysed for this current study is based on the papers published between 2020 to 2022. The researcher used Google Scholar as the main database to search for the research articles. Additional research papers were obtained from the researcher's institution's subscribed databases, namely Emerald, Springer Link, ScienceDirect, Eric, ResearchGate, MedEdpublish, Wiley Online Library, and SSRN. The following sub-themes were used to search for the related literature: *technological tools used in teaching and learning during Covid-19*, *the effective use of technology in teaching and learning during Covid-19*, *the effects of technology in education during Covid-19*, and *the use of technology to teach during Covid-19*.

Consequently, the inclusion and exclusion criteria were used to choose the relevant research papers. For the inclusion criteria, the researcher considered research papers written in English, published between 2020 and 2022, studies using qualitative and quantitative research methods, and papers conducted to analyse the impact of technology used during the Covid-19 pandemic. In addition, studies on the use of technology other than in teaching and learning were excluded from this study. Google Scholar resulted in a total of 98 articles. The analysis of the 98 articles was done by glancing at the title and abstract of each article (as per the PRISMA guideline). Fifty articles were then considered for full screening in order to address the study's research questions. During the screening process, 30 articles were selected for data abstraction, while 20 were omitted.

Finally, some of the results from the extracted articles for review are tabulated in Table 1 below. The following headings were used to summarise the results: Title, challenges, and opportunities of using technology in teaching and learning during the pandemic.

Table 1: Categorisation of reviewed studies into various discourse

Author	Title	Challenges	Opportunities
Sanders and Goh (2020)	A vision of the use of technology in medical education after the Covid-19 pandemic.	Replicating the experience of clinical encounters has proven to be a significant issue for medical educators.	With the advent of adaptive learning, all students will have access to a variety of tailored learning opportunities and tools for education and to inform teachers of how pupils are gaining knowledge from their experiences.
Al-Marroof, Salloum, Hassanien and Shaalan (2020)	Fear from Covid-19 and technology adoption: The impact of Google Meet during Coronavirus pandemic	Fear of losing social relationships. Fear of education failure.	The use of Google Meet as a teaching tool provides and enables students to connect easily on their smartphones. The confidence of the students is reduced to its minimum level.
Rajab, Gazal and Alkatan (2020) and Rahjab (2020)	Challenges to online medical education during the Covid-19 pandemic	Lack of adequate communication. Pandemic-related anxiety. Lack of proper time management.	Increased student confidence.
Sari and Nayir (2020)	Challenges in distance education during the (Covid-19) pandemic period	Lack of internet connectivity. Lack of interaction with the lecturers. Lack of necessary infrastructure. Inefficiency in response to queries.	The advancement of technology has helped distance learning to provide educational assistance to a wide range of learners despite geographical location.
Budianto and Arifani (2021)	Utilising WhatsApp-driven learning during Covid-19 outbreak: EFL users' perceptions and practices	Impact on student performance as students cannot find a balance between social and online school activities.	The use of WhatsApp in teaching and learning positively affects communication and engagement between students and the lecturer. It encourages problem-solving.

Asmara (2020)	Teaching English in a virtual classroom using WhatsApp during the Covid-19 pandemic	Uploading work onto email because the submission was complex due to poor internet connectivity. Students lack knowledge of how to create email accounts. Time-consuming because the lecturer waits for each student to respond. No feature indicating the number of students present for the session. Low level of access to the internet by students staying in rural areas.	Students were encouraged to think critically.
Terenko and Ogienko (2020)	How to teach pedagogy courses online at university in Covid-19 pandemic: Search for answers	Students experienced technical issues during the class sessions. Unstable internet connection. Lack of well-designed web-based curriculum resources.	The use of Zoom in teaching and learning allows students to engage in discussions. Increased level of positivity towards online learning.
Efriana (2021)	Problems of online learning during Covid-19 pandemic in EFL classroom and the solution	Students living in rural areas experienced internet connection issues. Teachers were reluctant to adopt the change due to a lack of information and communication technologies (ICT) skills.	Teachers and learners experienced difficulties in practising online learning but admitted it would boost and provide flexibility to their teaching and learning.
Lubis and Yudhi (2021)	Online learning during the Covid-19 pandemic: How is it implemented?	Difficulties faced by tutors and students during this era were difficulties in realising learning objectives, network disruption and high costs.	Online learning promoted technology abilities for both the educator and learner and made learning more accessible.
Mishra, Gupta and Shree (2020)	Online teaching-learning in higher education during the lockdown period of the Covid-19 pandemic	Online teaching-learning was a challenge as stakeholders were not fit to adjust to sudden educational changes related to technological literacy.	Online learning presented versatility in learning, enabling instructors and learners to diversify their mode of learning and teaching.
Batubara (2021)	The problems of the world of education in the middle of the Covid-19 pandemic	The major obstacle faced is the unpreparedness of instructors and students in online teaching and learning and challenges accessing the internet.	Provision of internet facilities and preparedness of educators and learners.

Junus, Santoso, Putra, Gandhi and Siswantining (2021)	Lecturer readiness for online classes during the pandemic: A survey research	Since they do not believe learning objectives can be met, their suitability for teaching online courses was not optimised.	Lecturers can use e-Learning platforms for online courses because they have good technological abilities.
Mustapha, Van, Shahverd, Qureshi and Khan (2021)	Effectiveness of digital technology in education during Covid-19 pandemic: A bibliometric analysis	There is a growing quest to increase the effectiveness of digital technologies in teaching and learning to diversify education.	Digital technology used in education saves the cost of travelling and time and in flexible location and inclusive.
Aliyyah, Rasmitadila, Samsudin, Syaodi, and Nurtanto and Tambunan (2020)	The perceptions of primary school teachers of online learning during the Covid-19 pandemic period: A case study in Indonesia	The teachers and learners experienced several challenges relating to technology compliance.	There was encouragement from the national humanist curriculum, and stakeholder support and collaboration enhanced this process.
Goh (2021)	A vision of the use of technology in medical education after the Covid-19 pandemic	Emergent technology for teaching and learning is generally expensive to build and necessitates a variety of skills.	A wide variety of teaching and learning tools were made available to students and educators through the use of adaptive learning, which encouraged a personalised approach.
Dolighan and Owen (2021)	Teacher efficacy for online teaching during the Covid-19 pandemic	Teachers' efficacy in online teaching was inadequate for online delivery and required an overhaul.	Prior experiences of educators, such as additional qualification courses and online personal development, build greater self-efficacy in teachers.
Hebebcı, Bertiz and Alan (2020)	Investigation of views of students and teachers on distance education practices during the Coronavirus (Covid-19) pandemic	Distance learning in this period was met with challenges such as restricted interaction and limited infrastructure and equipment.	Distance education can be carried out in a planned and scheduled manner. Thereby giving learners and educators flexibility.
Shenoy, Mahendra and Vijay (2020)	Covid-19 lockdown technology adaption, teaching, learning, students engagement, and faculty experience	During this time, professors and students experienced a great deal of fear, consciousness, and anxiety, which impacted teaching-learning, student involvement, and faculty experience.	Technology was widely used during this time, and teachers and students engaged in various online learning activities.

Peimani and Kamalipour (2021)	Online education and the Covid-19 outbreak: A case study of online teaching during lockdown	Due to poor Wi-Fi reliability, online instruction during lockdown was hampered by limited access to a reliable internet connection.	Regardless of the delivery method, emerging technologies can be leveraged to support teaching and learning activities.
Alqahtani and Rajkhan (2020)	e-Learning critical success factors during the Covid-19 pandemic: A comprehensive analysis of e-Learning managerial perspectives	The most challenging aspects of the pandemic were the demands for a high degree of Information Technology from professors, students, and universities.	Thanks to management's assistance and technology management, students became more aware of the benefits of using e-Learning systems.
Singh, Steele and Singh (2021)	Combining the best of online and face-to-face learning: Hybrid and blended learning approach for Covid-19, post vaccine, & post-pandemic world	Stress on learners and instructors as they must get involved in both online and face-to-face classes and poor online teaching and learning facilities.	Combining the best of both the traditional and online worlds to offer engaging learning experiences for students and instructors has been considered a worthwhile experience.
Bashir, Bashir, Rana, Lambert and Vernallis (2021)	Post-Covid-19 adaptations; The shifts towards online learning, hybrid course delivery and the implications for Biosciences courses in the higher education setting	Inadequate home working environment and lack of necessary online items intensify social and digital inequality, particularly for students from more deprived households.	Most students reported positive experiences with online open-book assessments, and most would welcome this format in the future.
Noor, Isa and Mazhar (2020)	Online teaching practices during the Covid-19 pandemic	Challenges confronted by the school teachers range from the high cost of internet packages, uncooperative learners, low attendance of learners, teachers' Information Technology confidence and poor network infrastructure.	The creativity, community spirit and dedication demonstrated by the school teachers in working with limited resources were exemplary.
Hebebcı, Bertiz and Alan (2020)	Investigation of views of students and teachers on distance education practices during the Coronavirus (Covid-19) pandemic	There are challenges of limited interactions, lack of equipment, and infrastructure issues associated with distance learning.	Distance education offers both teachers and learners the privilege of carrying out learning activities in a scheduled and planned manner.

Konig, Biela and Glutsch (2020)	Adapting to online teaching during Covid-19 school closure: Teacher education and teacher competence effects among early career teachers in Germany	Teacher education and teacher competence among early career teachers were found inadequate during this period.	There is a need to improve information and communication technologies (ICT), digital teacher competence, and teacher education opportunities which are paramount to adapting to online teaching.
Hermanto and Srimulyani (2021)	The challenges of online learning during the Covid-19 pandemic	Challenges of online learning range from lack of internet access to learners' discipline and poor social interaction during this time.	Online learning has increased teachers' and students' mastery of Microsoft Office software and other online learning technologies.
Ali (2020)	Online and remote learning in higher education institutes: A necessity in light of Covid-19 pandemic	In a time like this, there were challenges to the staff and student readiness, confidence, accessibility and motivation to carry on online or remote learning.	Technology and technological gadgets are necessities in promoting online and remote learning in the Covid-19 era.
Alhumaid, Habes and Salloum (2021)	Examining the factors influencing the mobile learning usage during Covid-19 pandemic: An integrated SEM-ANN method	There were perceived expectations and fear, such as the fear of losing friends, having a stressful family environment, and fear of future results in school.	The use of mobile learning in the field of education created a positive outcome for teaching and learning.
Rizaldi, Doyan, Fatimah, Zaenudin and Zaini (2021)	Strategies to improve teacher ability in using the Madrasah e-Learning application during the Covid-19 pandemic	The Covid-19 pandemic presented certain difficulties for the techniques to enhance teachers' ability to use the Madrasah e-Learning programme, which consists of three stages: 1) Preparation 2) Implementation 3) Evaluation.	The Madrasah e-Learning programme during the Covid-19 pandemic boosted students' interest and passion for learning at home while following the pandemic's health precautions.

Source: Authors' own compilation

DISCUSSION OF CORRELATED FINDINGS

The emergence of Covid-19 in 2020 did not result in the end of learning, teaching, or evaluation as anticipated. Rather, online contingency plans were created to keep these activities ongoing via a digital interface so students could continue their academic advancement (Rapanta et al., 2020). During these difficult circumstances, educational institutions across the globe reacted quickly to bring instruction and examinations online. Despite seeking more interactive lectures, only half of the students felt comfortable communicating with video cameras after switching to remote learning and the online classroom. Free text responses showed that some students lacked necessary items like desks and had inadequate home workspaces, suggesting how remote working may worsen social and digital inequalities, particularly for students from lower-income households (Bashir et al., 2012). The outbreak has made routine traditional education tasks substantially more difficult. The direct results included lockdowns in previous years and the requirement that schools, colleges, and universities be closed (Watermeyer et al., 2020).

Staff members with little or no expertise in using technology experienced severe stress due to the quick transition to a new teaching method. Seasoned and new employees acknowledged higher anxiety and work-related stress throughout the pandemic. According to Singh et al. (2012), there has also been a considerable decline in relationships with other staff members, co-workers, and students over this period. These signs suggest that academic staff members and students had mental difficulties while attempting to work and keep up with the demands of the escalating pandemic (Hero, 2020; Flaherty, 2020).

Although educational institutions faced significant obstacles that forced them to incorporate technology into their teaching, the pandemic also presented some opportunities. Institutions, educators, and learners embraced the online and hybrid teaching and learning methods because they were the only option if learning were to continue during the lockdown. Higher education is now more accessible to a more extensive range of people, thanks to the flexibility of time and place that online learning enables (Varty, 2016). One way to give students appealing learning possibilities is through hybrid or blended learning, which combines in-person instruction with online learning opportunities (Singh et al., 2021). Undeniably, universities and other HEI quickly switched to online learning to retain instruction during the Covid-19 crisis. However, there are numerous benefits to attending classes on campus (Singh et al., 2021). Flexibility, the ability to learn at your own pace, a positive learning environment, self-directed learning, cost-effectiveness, and the potential for in-depth conversations are some of the benefits of online learning that are widely emphasised (Singh et al., 2021).

However, through hybrid and blended instruction, students can engage in face-to-face, online learning, and scheduled and self-paced classwork (Singh, 2017). Since this type of instruction allows teachers to reinvent and adapt the subject matter, it can become the new norm, particularly in subject areas where teachers have found it challenging to create engaging online learning environments for their students (Rodriguez, 2020). More than 70% of students prefer largely or entirely face-to-face learning environments, according to the ECAR Study on Undergraduate Students and Information Technology (Gierdowski, 2019). This suggests that students prefer blended learning environments over other learning methods because they see in-person lectures as an opportunity to interact with the lecturers, their peers, and the course material, and they see technology as a useful tool to enable such contact. The increased flexibility, integration of cutting-edge multimedia, and ease of access are some of the most frequently accepted advantages (Alexander et al., 2019).

While it has been noted that online resources and their utilisation are becoming increasingly important to students' educational experiences, access to a reliable internet connection is nearly non-existent outside of campus housing and dormitories due to poor Wi-Fi coverage.

Furthermore, students' preferences (such as learning environments, technology usage in the classroom, and experiences with it) may be significantly impacted by the changing demographics of the student population (Gierdowski, 2019). Although online learning made it easier for students to interact with teachers, it fell short of fostering student-to-student interactions, which are even more important in urban design classes because students must function well in small groups in order to collaborate.

This partially supports Dumford and Miller's (2018) assertion that online students are less eager than their counterparts in traditional classroom settings to engage in collaborative learning and diverse peer connections. This implies that students are less likely to develop crucial professional traits, including communication, interpersonal, and practical skills (Norton et al., 2013). In addition, it is more challenging to enable synchronous engagement through dialogues among individual students when using online platforms like Microsoft Teams. The inability to make eye contact with students, divide the class into smaller groups, and encourage active involvement has made online synchronous small-group teaching and learning activities less successful. Adopting a hybrid course delivery model, among other benefits, enables instructors to give students some flexibility in remote studying while ensuring that they receive hands-on training and face-to-face interaction to keep students engaged and benefit from the resources and support offered on campus.

In addition, the issue of availability and accessibility of technology was identified as another crucial factor. It was the responsibility of institutions to ensure that students have access to the necessary technology and equipment to participate in online classes and access learning resources (Alqurashi, 2021) and accessibility thereof. While Peimani and Kamalipour (2021) spoke about the challenge of limited accessibility to stable internet connection due to the low rate of Wi-Fi reliabilities, Ali (2020) emphasised the challenges to staff and student readiness, confidence, accessibility, and motivation to carry on online or remote learning. Students from low-income families or those living in remote areas were reported to lack access to technology, leading to inequitable access to education (Bao, 2020). Subsequently, the digital divide sometimes resulted in unequal learning outcomes, with students from disadvantaged backgrounds more likely to experience academic setbacks (Chen et al., 2020). In contrast, teachers need the necessary skills and competencies to use technology effectively in the classroom and support students in learning (Bao, 2020). Hence, the need for a possible modification of their teaching strategies to accommodate the use of technology and ensure that they align with the student's learning needs (Chen et al., 2020).

SIGNIFICANCE OF THE STUDY

The relevance of the study's findings is discussed in this section. First, the study adds to our understanding of how well technology supported teaching and learning in higher education during the Covid-19 pandemic. Second, the study sheds light on the crucial elements HEIs must consider when using online teaching and learning strategies. Such a study can help teachers improve their lesson plans and contribute to the continuing debate over how technology could be used in education beyond the pandemic. Third, the study provides policymakers and other stakeholders in education with information on the difficulties in utilising technology for teaching and learning in higher education during the pandemic. Lastly, the study highlights the necessity for investments in digital literacy programmes and technology pedagogical training to facilitate the efficient and equitable use of technology in higher education teaching and learning.

CONCLUSION AND RECOMMENDATIONS

The SLR on identifying crucial variables that affect technology's efficacy in higher education teaching and learning during the Covid-19 pandemic offers insightful information on the global difficulties and opportunities the pandemic presents for HEIs. The review emphasises the pandemic's significant effects on teaching and learning in higher education and the critical role technology plays in enabling distance learning and promoting educational continuity. The review also identifies critical elements that affect how well technology is used for teaching and learning in higher education, such as pedagogical approaches, student engagement, accessibility and availability, collaboration, teacher preparation, and digital literacy. These elements are essential for guaranteeing the effective acceptance and deployment of technology in higher education, especially during crises like the Covid-19 pandemic.

It is essential to understand the elements that determine the usefulness of technology in teaching and learning in order to ensure that educational systems deliver high-quality instruction and fair access to all students throughout the Covid-19 pandemic. HEIs have been forced to adopt online teaching and learning strategies due to the Covid-19 pandemic, which has negatively influenced instruction. As a result, technology has been crucial in preserving educational continuity throughout this crisis. However, there is still disagreement over how well technology supported teaching and learning in higher education during the pandemic.

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Building customer loyalty through rewards, trust and satisfaction: The special case of South Africa

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ABSTRACT

The popularity of loyalty programmes in South Africa's food retail industry is growing exponentially. However, the effectiveness of these loyalty programmes still needs to be discovered. Food retailers reward those customers who use their services by offering incentives. However, despite offering different rewards, there appears to be uncertainty about the effectiveness of hedonic, symbolic and utilitarian rewards on loyalty when loyalty is managed. Furthermore, according to the literature, food retailers should also focus on trust and satisfaction when customer loyalty is managed.

This study investigates the role of the different types of rewards, trust and satisfaction when customers commit to a food retailer's loyalty programme, especially from a South African perspective. Ultimately, it is argued that commitment towards a loyalty programme results in actual customer loyalty. Non-probability sampling was used to distribute a self-administered questionnaire to members of South African food retailers' loyalty programmes via social media platforms. Regression analysis was used to analyse the data.

The study's results confirmed the importance of rewards in loyalty programmes, but surprisingly, the significance of trust and satisfaction as important building blocks could not be established. Thereby, relationships that are almost cast in stone are questioned.

Keywords: Behavioural loyalty, attitudinal loyalty, rewards, satisfaction, trust, commitment.

INTRODUCTION

The South African economy is currently shaped by numerous global and local disruptions, including low global economic growth, political tensions, loadshedding and ineffectiveness of state-owned enterprises, to mention a few (Marais and Ntsoane, 2023). Furthermore, there is evidence that customer loyalty and retention are declining globally (Hyken, 2019). Retailers are therefore confronted by the need to build loyalty amongst customers, but on the other hand, customers are becoming less loyal. It is, consequently, understandable that retailers are putting a renewed focus on the management of loyalty programmes (Utz, Johanning, Roth,

Bruckner and Strüker, 2023). In fact, businesses are investing in loyalty programmes to build customer relationships (MeyerWaarden, Bruwer and Galan, 2023).

This paper focuses on the role that customer rewards, trust and satisfaction play when such loyalty programmes are managed. Only once certainty is gained regarding which of these elements are significant when customer loyalty is built, marketers can begin reconsidering their current marketing practices and action plans.

LITERATURE REVIEWED AND PROBLEM INVESTIGATED

LOYALTY

Fostering loyalty enables a business to enjoy financial and non-financial benefits (Manjenje and Muhanga, 2023). Since attracting new customers cost more than retaining current customers, it is important to reward existing customers appropriately to prevent losing them, as it reduces marketing costs (Härtel, Russel-Bennet and Worthington, 2010). Loyal customers are more prone to recommend the brand or business – referrals are viewed as a vital source of new customers as research indicates that customers who purchase a brand due to personal recommendations tend to have a longer relationship (Magatef and Tomalieh, 2015). By appropriately rewarding loyal customers, it benefits the business or brand financially and non-financially, increasing the spread of positive word of mouth (Härtel *et al.*, 2010).

Within the context of the study, loyalty can be defined as a deeply held commitment to repurchase a preferred service or product continuously in the future, which results in repetitive same-brand purchasing, despite situational influences attempting to promote switching behaviour (Masrun, Gisip and Sumin, 2023). Loyalty, therefore, reflects the individual customer's likelihood of repurchasing the product or service (Das, Nayyar and Singh, 2019).

Loyalty is both a long-term attitude and a long-term behavioural pattern, which is reinforced by multiple customer-business engagement experiences as time proceeds (Terblanche and Boshoff, 2006). Therefore, customer loyalty can be viewed as a behavioural and attitudinal predisposition to remain with a business or seller in the long term (Valenzuela, 2012). Attitudinal loyalty reflects the individual's psychological disposition toward the specific brand and involves measuring customer attitudes (Evanschitzky, Plassmann, Niessing and Meffert, 2006). This type of loyalty is dependent on the customer's emotional state since it incorporates the underlying psychological condition, which reflects the affective nature of the relationship between the individual and the specific business or brand (Asiamah, Chinje, Hinson, Nimako and van Zyl, 2016). This results in a favourable attitude toward the business or brand (Backhaus, Blut, Evanschitzky, Ramaseshan, Richelsen and Woisetschläger, 2012). It is believed that customers express attitudinal loyalty through means such as their intention to repurchase the products and recommend the specific business to other potential customers in the future (Valenzuela, 2012).

On the contrary, behavioural loyalty reflects customer actions and involves measuring the likelihood of repurchasing past purchases and the probabilities of future purchases given the customer's past purchase behaviours (Brzozowska-Woś and Schivinski, 2017). In essence, behavioural loyalty is the consumer's tendency to repurchase a brand, directly impacting brand sales (Hwang, Kim, Lee and Lee, 2021). Customer loyalty translates directly into customers'

purchase behaviours, generating direct, tangible returns instead of attitudinal loyalty (Kumar and Shah, 2004). Customers express behavioural loyalty through various actions such as continuous purchases, frequency of purchase, recommendations made to other individuals and various products or services purchased by the business (Valenzuela, 2012).

THE ROLE OF COMMITMENT

Commitment is the primary antecedent of loyalty, which reflects the degree to which an individual engages in repeated exchanges with the same partner over time (Cheshire, Cook, Nakagawa and Rice, 2013). Customer commitment refers to how a customer desires to continue and maintain a relationship with a specific business or brand (Sanz-Blas, Ruiz-Mafé and Perez, 2014). Since commitment is an important (even necessary) precursor of loyalty, loyalty programme developers and managers need to focus on managing customer commitment. Although the literature points to a variety of variables that could be used to manage commitment, especially rewards, trust and satisfaction appears to be important (Grigaliunaite, Kyguoliene and Zikiene, 2017; Stathopoulou and Balabanis, 2016; Guido, 2015).

ANTECEDENTS OF COMMITMENT

Offering a reward to a customer becomes more relevant when loyalty programmes are managed. A reward is defined as the material or financial expression of appreciation used in an equitable exchange by attempting to increase the desirable action's frequency (Baskar, 2015). The appropriateness of the type of reward that is suitable and acceptable to customers is influenced by individual differences and differs across purchasing situations (Grigaliunaite *et al.*, 2017).

Rewards are offered to individual customers for various reasons, such as increasing customer retention and developing and enhancing close bonds between the customer and the business (Stathopoulou and Balabanis, 2016). However, the rewards attributed to customers must be aligned with the business's capability of providing them consistently and continuously, contributing to developing and fostering customer loyalty (Cheung, Lam and Lau, 2013).

Rewards can be regarded as an additional or unique benefit that a business offers its current and potential customers (Cheung *et al.*, 2013). To maintain customer loyalty, rewards must directly relate to customers' loyal behaviours, such as repeated purchases (Cheung *et al.*, 2013). Three types of rewards (hedonic, symbolic and utilitarian) are given to customers who are perceived to be loyal to a business (Grigaliunaite *et al.*, 2017). Hedonic rewards refer to benefits an individual receives through entertainment or exploration (Stathopoulou and Balabanis, 2016).

Hedonic and symbolic rewards are non-monetary, including benefits, such as the opportunity and permission to attend a special event (Stathopoulou and Balabanis, 2016). It is believed that nonmonetary (hedonic and symbolic) rewards contribute to developing commitment and loyalty (Chen, Mandler and Meyer-Waarden, 2021). Symbolic rewards reflect the extrinsic advantages an individual receives from a product or service related to the individual's needs for personal expression, self-esteem and social approval (Stathopoulou and Balabanis, 2016). Utilitarian rewards are economical and functional as they enable loyal individuals to access monetary savings such as discounts (Grigaliunaite *et al.*, 2017). It is believed that monetary

(utilitarian) rewards significantly contribute to developing commitment and loyalty (Zhang and Wang, 2023). Utilitarian rewards serve as an economic motivation for all customers, especially price-conscious shoppers with a heightened tendency for price promotions (Reid, Thompson, Mavondo and Brunsø, 2015).

Trust is a further important antecedent of commitment (and therefore loyalty). Trust can be defined as the individual's willingness to rely on an exchange partner in whom the individual has confidence (Backhaus *et al.*, 2012). Customer trust reflects the customer's confidence in the business or brand of interest, reliability and integrity (Stathopoulou and Balabanis, 2016). Therefore, trust is regarded as an antecedent of commitment (Chen, Tingchi Liu, Liu, Chang and Yen, 2022). Due to the positive relationship between customer trust and customer loyalty, trust is related to both attitudinal and behavioural loyalty (Boonlertvanich, 2019).

Also important is the inclusion of satisfaction when commitment is managed. However, defining satisfaction appears to be challenging, primarily because the concept can be defined from several perspectives (Otaibi and Yasmeen, 2014). This study, however, supports the view of Guido (2015) that satisfaction refers to an assessment of a product or service's performance compared to the individual's expectations or another standard of comparison. More specifically, customer satisfaction relates to the customers' evaluation of the product or service regarding whether the product or service met or exceeded the individual's needs and expectations (Otaibi and Yasmeen, 2014). Satisfying the individual customer's needs and wants is the key to developing consumer commitment and loyalty (Sanz-Blas *et al.*, 2014). Within the loyalty programme, the ideal is to satisfy the customer and reach customer delight (Cetin, 2020).

PROBLEM INVESTIGATED

The average South African is an active member of 9.2 loyalty programmes (Business Tech, 2022). This relatively high number, together with the fact that the South African retail landscape is becoming continuously competitive, necessitates South African retailers to search for innovative ways to build customer loyalty. Although the importance of rewards, trust and satisfaction as building blocks of loyalty have been addressed in the literature, the results are inconclusive.

Especially the management of rewards is complex, mainly due to the nature of the concept of rewards. Furthermore, the three types of rewards differ in nature and appropriateness in various situations (Grigaliunaite *et al.*, 2017). In addition, the multi-dimensional nature of loyalty complicates the finding of an appropriate reward type (Backhaus *et al.*, 2012).

This study aims to clarify the positions of rewards, trust and satisfaction when commitment (and, therefore loyalty) is managed. More specifically, the study focuses on these antecedents' roles when loyalty is managed within the South African food loyalty programme industry.

RESEARCH OBJECTIVES AND HYPOTHESES

The study's primary objective was to investigate the effect of rewards, trust, satisfaction and commitment on customer loyalty.

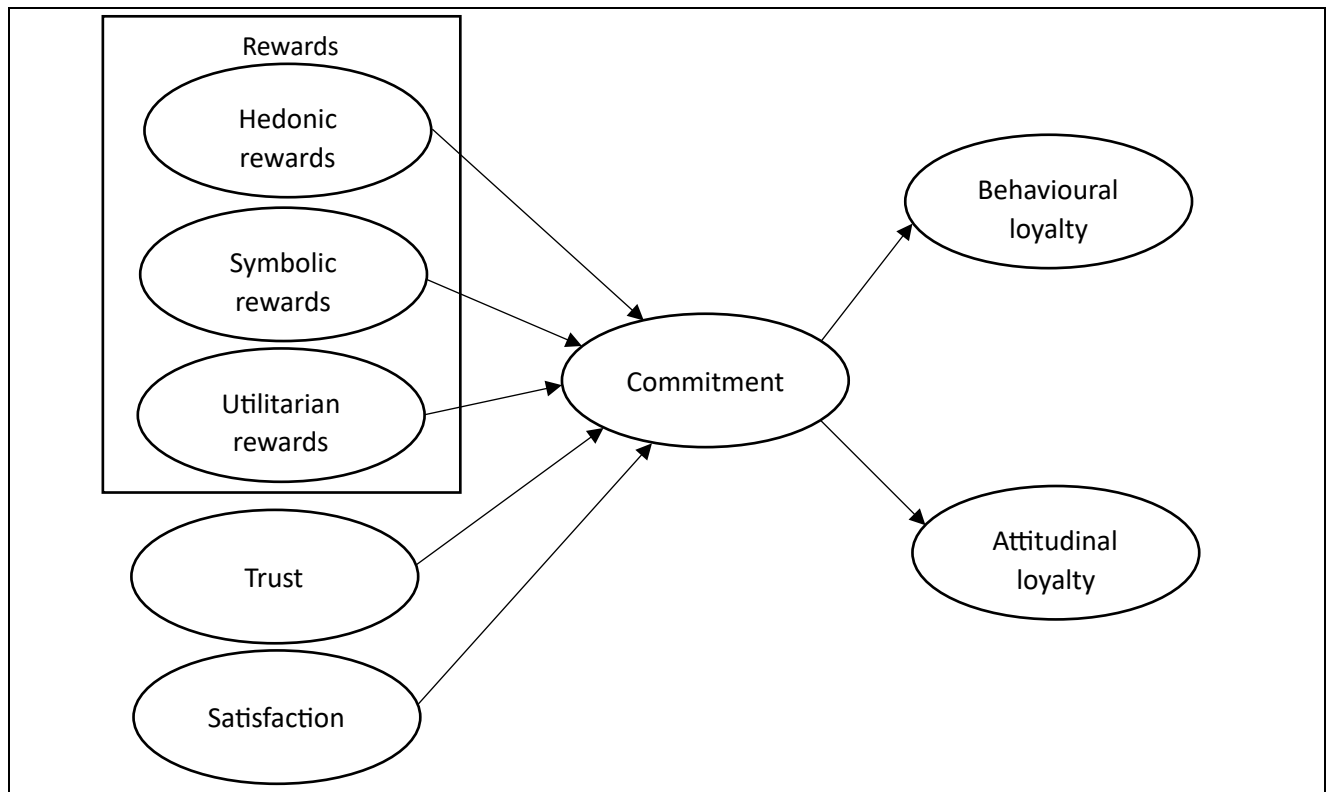
This primary objective was supported by the following secondary objectives: (1) To analyse the role of rewards, trust, satisfaction, commitment and loyalty in relationship marketing, and (2) to empirically assess the relationship between rewards, trust, satisfaction, commitment and loyalty.

Against the above literature review, the following hypotheses were stated:

- H₁: There is a positive relationship between symbolic rewards and customer commitment.
- H₂: There is a positive relationship between hedonic rewards and customer commitment.
- H₃: There is a positive relationship between utilitarian rewards and customer commitment.
- H₄: There is a positive relationship between customer trust and customer commitment.
- H₅: There is a positive relationship between customer satisfaction and customer commitment.
- H₆: There is a positive relationship between customer commitment and behavioural loyalty.
- H₇: There is a positive relationship between customer commitment and attitudinal loyalty.

The above hypotheses are visually portrayed in Figure 1.

FIGURE 1:
HYPOTHESISED RELATIONSHIPS



RESEARCH METHODOLOGY

The study was conducted in the retail food industry of South Africa. Non-probability sampling techniques were used to generate the data. The study's measuring instrument and the data gathering and analysis process are explained.

Context of the study: To satisfy the needs of the growing population, the number of supermarkets in South Africa increased rapidly since 2018 (Statista, 2020). South Africa's population grew exponentially, which resulted in an increasing demand for shopping convenience and product variety (Mahlangu and Makshitha, 2019).

The highly competitive South African supermarket industry is dominated by Shoprite-Checkers, Pick n Pay, Spar and Woolworths (Mahlangu and Makhitha, 2019). Due to this competitiveness, these retailers attempt to attract new customers and retain current customers through price promotions, advertising and especially loyalty programmes (Mahlangu and Makhitha, 2019). However, there appears to be a need for more knowledge on the effectiveness of these loyalty programmes and the role that rewards play in such programmes (Gorlier and Michel, 2020).

Sampling: The target population was South African individuals 18 years and older who are members of a South African food retailer's loyalty programme. The non-probability sampling technique was used to distribute an online questionnaire. Convenience sampling was used to distribute the questionnaire to potential respondents through social media, including *WhatsApp*, *Facebook* and *Instagram*.

Measurement instrument: All items were sourced from the literature, meaning no items were self-generated. This was done in order to only use items of which the reliabilities were previously determined. The questionnaire included 40 Likert-scale items (measured on a 7-point scale) and six demographic questions.

Data gathering: The online, self-administered questionnaire was distributed to potential respondents through three social-media platforms: *WhatsApp*, *Instagram*, and *Facebook*. The collection of the data occurred over three weeks.

Data analysis: SPSS version 27 was used to analyse the data. Reliability was assessed through Cronbach alpha (using a cut-off point of 0,7). The relationships between the independent and the dependent variables were assessed through regression analyse. To assess all the hypothesised relationships, three separate regression analyses were conducted.

Ethical considerations: The study was classified by the tertiary education Research Ethics Committee participating in the research as a low-risk study.

RESULTS

The study was conducted in two phases: a pre-test and the main study. The purpose of the pre-test was to assess the questionnaire's reliability during the main study. A small sample of the target population was approached, and the reliability scores were determined by calculating Cronbach alphas. These scores ranged between 0.720 and 0.877, demonstrating sufficient internal consistency.

In the main study, 226 respondents completed the questionnaire; however, only 175 of the 226 responses fulfilled the requirement of being a member of a food retailer or supermarket loyalty programme that is valid in South Africa.

DEMOGRAPHIC PROFILE OF RESPONDENTS

In total, 80.6 per cent of the respondents were female, and 18,9 per cent were males. Only 0,6 per cent of the respondents preferred not to answer this question. Regarding age distribution, the most significant cohort was the 18-29 years cohort (38,1%) and the 50+ cohort (39.2%). Almost half of the sample was employed full-time, while 18 per cent were full-time students. Six of the 85 full-time employed respondents indicated a National Senior Certificate (NSC) as their highest education level, 31 had diplomas, 16 had Bachelor's degrees, 15 had honours degrees, and five had master's degrees. Income levels varied considerably, with most respondents (61.0%) earning less than R30 000 monthly.

RELIABILITY AND VALIDITY

The Cronbach alpha values ranged between 0.717 and 0.783, demonstrating sufficient reliability levels. The only exception was commitment which achieved a reliability score of

0.574. It was, however, decided to retain this variable due to the overwhelming literature support for these antecedents. However, this relatively low reliability score is regarded as a limitation of the study.

Content validity was addressed by only employing items of which the reliability was previously assessed. No items were self-generated. Face validity was ensured by obtaining marketing academics' subjective agreement regarding the suitability of the constructs.

INFERENCE ANALYSIS

To reach the objectives of the study, three separate regression analyses were conducted. All three regression analyses were conducted with a 95 per cent confidence interval, with a five per cent chance of error occurring. The independent and dependent variables for the three regression analyses appear in Table 1

TABLE 1:
DEPENDENT AND INDEPENDENT VARIABLES

Regression analysis number	Dependent variable	Independent variables
1	Commitment	Symbolic rewards, hedonic rewards, utilitarian rewards, satisfaction, trust
2	Behavioural loyalty	Commitment
3	Attitudinal loyalty	Commitment

The results of the regression analyses portrayed in Table 1, are presented in Table 2.

TABLE 2:
RESULTS OF THE REGRESSION ANALYSIS

Independent variables	Beta (β) value	t-value	VIF level	Tolerance level	Significance (p) level
Regression analysis 1: Commitment as dependent variable ($R^2 = 0.517$)					
H ₁ : Symbolic rewards	0,450	6,527	1,712	0,584	0,000
H ₂ : Hedonic rewards	0,172	2,306	1,997	0,501	0,022
H ₃ : Utilitarian rewards	0,176	2,275	2,154	0,464	0,024
H ₄ : Satisfaction	0,023	0,307	2,095	0,477	0,759
H ₅ : Trust	0,064	0,839	2,078	0,481	0,403
Regression analysis 2: Behavioural loyalty as dependent variable ($R^2 = 0.292$)					
H ₆ : Commitment	0,544	8,536	1,000	1,000	0,000
Regression analysis 3: Attitudinal loyalty as dependent variable ($R^2 = 0.438$)					
H ₇ : Commitment	0,664	11,677	1,000	1,000	0,000

The first regression model (with commitment as dependent variable) showed support for three of the five hypothesised relationships. All of the three types of rewards were therefore found to be significantly related to commitment. Symbolic rewards was accepted based on a significance level of 0.000, a beta value of 0.450, and a t-value of 6.527. In the case of hedonic rewards, the significance level was 0.022, the beta value 0.172, and the t-value 2.306. The same conclusion was drawn in the case of utilitarian rewards, where the significance level was 0.024, the t-value 0.176 and the beta-value 2.275. In the first regression analysis, support was therefore found for H₁, H₂ and H₃. However, the study failed to support hypotheses H₄ and H₅; therefore, the relationships between both satisfaction and trust (as independent variables) and commitment, could not be confirmed.

These unexpected results will be discussed later in this paper.

The second regression analysis assessed the relationship between commitment and behavioural loyalty. This hypothesised relationship was confirmed on the 0,000 level, with a beta value of 0.554 and a t-value of 8.536. Support was therefore found for Hypothesis H₆. The final hypothesis was assessed during the third regression analysis (H₇; between commitment and attitudinal loyalty). The significance level was 0.000, the beta value was 0.664 and the t-value 11.677. Based on this information, H₇ was accepted.

To assess multicollinearity, VIF levels and tolerance levels were inspected. In all cases, multicollinearity was found not to be a reason for concern. Regarding R² values, the following scores were detected: Regression analysis 1: 0.517; regression analysis 2: 0.292; regression analysis 3: 0.438. These numbers indicate that in the separate regression analyses, the independent variables declared 51.7%, 29.2%, and 43.8% of the difference in the dependent variables.

PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

Based on the literature review, this study stated several key hypotheses regarding the interplay between rewards, satisfaction and trust when commitment is managed. Broadly, the results of the current study concur with the existing literature. However, this study specifically focussed on the South African retail food industry, an industry that appears to be under-research in terms of the identified variables. From this perspective, a number of notable findings were detected.

In terms of relationships confirmed, support was found in this study for the relevance of all three types of rewards (symbolic, hedonic and utilitarian) when commitment is managed. Therefore, the findings of this study confirmed previous research on the topic (Grigaliunaite *et al.*, 2017; Grigaliunaite *et al.*, 2017; Stathopoulou and Balabanis, 2016). In a similar vein, the study found support for the relationship between commitment and behavioural loyalty, as well as between commitment and attitudinal loyalty, hereby supporting the work of Haghkhan, Rasoolimanesh and Asgari (2020) and Rather, Tehseen, Itoo and Parrey (2019).

More interesting, however, is the failure of this study to find support for the often assumed relationships between both satisfaction and commitment, as well as trust and commitment. The finding that trust is not a significant antecedent of commitment, is wildly unexpected due to the overwhelming support found in the literature for this relationship (Chen *et al.*, 2022). The

same can be argued, although to a lesser degree, about the relationship between satisfaction and commitment (Sanz-Blas *et al.*, 2014). The implications of these unexpected findings will be addressed later in this paper.

The study supported the importance of including symbolic, hedonic and utilitarian rewards when managing commitment. Firstly, this finding reinforces the idea that customers will remain committed to a relationship (or loyalty programme) if they perceive their involvement in the relationship is rewarded. Secondly, marketers have to analyse the true meaning of each type of reward, especially from the industry's perspective. For example, elements of fun (hedonic rewards), recognition (symbolic rewards) and monetary incentives (utilitarian rewards) could be included when commitment is managed.

From a commitment perspective, the focus needs to be on customers' desire to remain members of loyalty programmes. Commitment to a relationship is especially important since the literature points towards the importance of managing commitment when both behavioural and attitudinal loyalty is considered. The evidence for the prevalence of commitment and loyalty is so strong in the literature that these two dimensions can even be viewed as two important elements of the basic structure of a marketing relationship (Theron, Terblanche and Boshoff, 2012). The acceptance of the relationships between commitment and both behavioural and attitudinal commitment is, therefore, in support of this almost generally assumed basic structure.

Almost more important is that the study failed to support the relationships between satisfaction and commitment, as well as between trust and commitment. The unsupported relationships can possibly be ascribed to the struggling South African economy, which forces individuals to focus on product prices and their functional value. Therefore, customers prefer to focus on rational decision-making instead of supporting businesses based on being satisfied with the business or trusting the business. A further contributing factor to these discrepancies might be South Africans' individual differences, where different individuals have different opinions of what the concepts of satisfaction and trust mean. Furthermore, the non-significance of the trust-commitment relationship should be seen against the general feeling of distrust as described by the Edelman Trust Barometer (Edelman, 2023).

LIMITATIONS AND FUTURE RESEARCH

The first limitation that needs to be noted is the low-reliability score recorded for commitment. This low score was unexpected, primarily since all items measuring commitment were sourced from the literature. Further limitations centre around generalisability, which can mainly be attributed to the context of the study as well as the sample that was drawn.

In terms of future research, it would be interesting to study the effect of personality traits, especially the type of reward preferred. Research can also be done regarding the impact of culture on rewards and some of the other variables included in this study.

CONCLUSIONS

The fierce competition in the retail food industry is rising as South Africans' monthly disposable income is declining. South Africa's struggling economy and numerous third-world country obstacles, such as interrupted electricity supply and increased poverty, make it more difficult for food retailers to lure and maintain customer flow. Therefore, retailers need to maintain customer loyalty to survive. The study emphasised the importance of using rewards (both monetary and non-monetary) to create commitment and, thereby, loyalty. In addition, the study provided evidence that South African food loyalty programmes should use resources wisely to manage elements such as trust and satisfaction.

The contribution of the study lies on two levels. On an academic level, the study's results necessitate South African marketers to focus on those antecedents of loyalty that customers seek, in this case, the different types of rewards. These factors might be different to what is often discussed in the literature. On a practical level, the study's contribution lies in a number of valuable recommendations on how loyalty can be developed and enhanced in the retail food industry.

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EXPLORING THE STATE OF CREATIVITY IN THE SOUTH AFRICAN ADVERTISING INDUSTRY: TEN INSIGHTS FROM THE EXPERTS

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ABSTRACT

Creativity is essential to long-term advertising impact. However, brand spending on creative advertising and the related return on investment have been criticised by financial managers. James Hurman published his first findings proving the link between creativity and business results in 2011. Since then, creative effectiveness has gained traction in the advertising industry. In 2020 WARC and Cannes Lions commissioned research from Hurman and colleague Peter Field and The Effectiveness Code whitepaper was published, providing further proof for the business impact of creativity, emphasising creative commitment, and providing the Creative Effectiveness Ladder as a tool against which impact can be assessed. However, no research has addressed these concepts in South Africa, perhaps because brands are more focused on short-term survival than long-term brand health. In this study, qualitative research (expert interviews) was conducted to explore the state of creativity, creative effectiveness, commitment, and the enduring icon concept in South Africa from the viewpoint of highprofile advertising executives. The findings extracted from secondary research and the primary qualitative research are presented as ten insights.

Keywords: creativity, creative effectiveness, creative commitment, advertising, enduring icon

INTRODUCTION

“There is no doubt that creativity is the most important human resource of all.

**Without creativity, there would be no
progress, and we would be forever repeating
the same patterns.” Edward De Bono**

Understanding and managing creativity has become a vital survival requirement and a competitive advantage (Althuizen, 2012). Therefore, the exploration of creativity and related concepts has accelerated in recent years (Hurman and Field, 2020). Criticism has also grown for the manner in which many schooling systems stifle creative ability rather than develop it. It is the creative ability of individuals that drive creativity and facilitate the birth of original ideas, also in the world of advertising and marketing.

Demands pertaining to advertising creativity has shifted in the past decade, with the most successful advertisements being honoured for their creativity and persecuted when not providing evidence of creative effectiveness (Hurman and Field, 2020). Creative effectiveness

has been challenging to measure and therefore research conducted by Hurman and Field (2020) resulted, amongst others, in a framework for assessing creative work against the business impact it produces. Their research acknowledges the contextual nature of creativity and became the driving force for discovering the views of South African experts pertaining to creativity and creative effectiveness. Along with exploring these concepts, creative ability, creative commitment, the effectiveness ladder, and the idea of enduring icons were explored. The ten insights gained from secondary research and the qualitative interviews with high-profile advertising executives will conclude the document.

CREATIVITY AND CREATIVE ABILITY

Social and educational psychology literature defines creativity as finding nonobvious and unusual solutions to solving a problem, also known as divergent thinking (Guilford, 1950). Creativity results from having an intrinsic passion for one's work and it demands freedom from the disciplined mind (McKenna, Samuel, Franklin, Hoffarth, Lussier and Bretton, 2016). It can thus be said that creativity depends on one's creative ability. Creative ability is defined as the individual's natural capacity for divergent thinking, which manifests the ability to produce multiple associative responses to a given stimulus (Smith,

Mackenzie, Yang, Buchholz and Darley, 2007). In turn, creative advertising is derived from an individual who creates a creative idea, thus one who has a creative ability.

CREATIVITY AND ADVERTISING

Creativity has been identified as the key to success in advertising (Koslow, Sasser and Riordan, 2003).

Creative messaging holds a greater likelihood to grab people's attention and to contribute to positive consumer attitude (Hurman and Field, 2020). In the advertising context, the definition of creativity is often broadened to refer to the extent to which advertising is unique, different, novel, original and unusual (Reinartz and Saffert, 2013). According to Reinartz and Saffert (2013) advertising creativity holds five dimensions, namely: originality, flexibility, elaboration, synthesis and artistic value. Creative advertising provides value to a brand's message strategy that can have a long-lasting effect on the brand's revenue (Belch and Belch, 2013). Creative advertising thus requires creative effectiveness for it to be viewed as relevant and meaningful.

CREATIVE EFFECTIVENESS IN ADVERTISING

The effectiveness of creative advertising for brand-building purposes has been demonstrated in research (Belch and Belch, 2013). On many occasions, creative brands have received rewards and honourable mentions for their creativity, but in recent years the importance of creative effectiveness has become as prominent as the importance of creativity. Effectiveness is contextual and therefore campaign development should consider consumers' cultural preferences and triggers from different geographic markets. Brands that embrace effectiveness beyond mere creativity and can significantly improve the achievement of their envisioned outcomes, which in turn tend to lead to more investment into creative and innovative projects (Reinartz and Saffert, 2013). But what exactly is creative effectiveness?

CREATIVE EFFECTIVENESS DEFINED

Agency and marketing leaders have mentioned the lack of consensus about a universal definition of creative effectiveness (Hurman and Field, 2020). Consequently, there is an absence of a standardized practice of effectiveness and an inability to adapt future campaigns based on previous successes (Hurman and Field, 2020). An attempt to define creative effectiveness state that advertisements that are both appealing to consumers and succeed in influencing them to change their behaviour or adopt the behaviour the brand desires, are viewed as effective (Buckley, 2021). Thus, creative advertising that is also effective are those efforts that achieve the envisioned campaign goals (Astre, 2022). Research has also defined creative effectiveness by mentioning its relationship with creative commitment. An overview of the evolution of creative effectiveness and of the concept of creative commitment will provide more clarity.

EVOLUTION OF CREATIVE EFFECTIVENESS

For decades creative advertising has been acknowledged, both in South Africa and across the globe. For instance, the internationally acclaimed Cannes Lions have been awarding outstanding creative work since 1954 (Cannes Lions, 2023), and locally the Loerie Awards have done the same since 1978 (Loeries, 2023). However, it was only in 2013 that the Loerie Awards introduced a category for Effective Creativity, with the Cannes Creative Effectiveness Lions category introduced in 2015. These new awards categories signalled a shift in the demands placed on creativity by brands – no longer was it only about producing noteworthy, award-winning campaigns, but rather about how well those campaigns performed against the media and other expenses incurred in the campaign development and execution process. It became imperative for creative excellence to validate campaign budgets (Belch and Belch, 2013). Continuous scrutiny from financial departments about the relevance of spending large amounts of money on creative projects of which the returns were mostly seen as somewhat intangible, inspired well-renowned advertising executive, James Hurman, to embark on a project to prove the positive returns resulting from investment in creative advertising. The Case for Creativity was first published in 2011 and later expanded to include international evidence gathered over three decades in support of the link between creativity and business results (Hurman, 2016). The research confirms that marketing and advertising are not an expense, but an investment, and that creativity consistently provides the best returns over the long-term (Malden, 2022). Almost a decade after Hurman's book was first published, WARC and the Cannes Lions commissioned a project to further grapple with the issues of creativity and creative effectiveness. The study took place in 2020 and was conducted by James Hurman and Peter Field. Brands from every major market in the world formed a part of the 4 863 effectiveness award entrants and winners from 2011 to 2019 that were analysed. The findings on creative effectiveness were communicated in a whitepaper titled The Effectiveness Code.

The research culminated in the Creative Effectiveness Ladder (Think TV, 2023).

CREATIVE EFFECTIVENESS LADDER

The Creative Effectiveness Ladder was developed as a framework against which creative effectiveness can be consistently measured. It identifies six main types of effects resulting from creative marketing, presented in a hierarchy of Level 1 to Level 6 from least to most commercially impactful:

1. Level 1 – Influential Ideas: Creativity is used in these campaigns to increase engagement and sharing. The strategy results in overachievement in campaign metrics and media efficiency. For example, in honour of Australia's national day, McDonald's changed its name to Macca's. For this month, it was the brand that received the most media attention in Australia. (Love The Work, 2023).
2. Level 2 – Behaviour Breakthrough: Creativity changes the consumer's purchase behaviour or other behaviours required for commercial success. For example, OPSM introduced a storybook and app called Penny the Pirate that for the first time allowed parents to check their kids' vision, whilst reading them a story, resulting in 126 000 parents testing their kids' eyes (Saatchi, 2015).
3. Level 3 – Sales Spike: These campaigns use creativity to temporarily grow sales and increase the brand's market share and profitability. For example, Tui (one of the world's leading tourism groups) introduced a promotion where any cricket fan who caught a clean one-handed six whilst wearing a Tui shirt was eligible to win \$100 000. This promotion led to the highest sales and market share in two years (Love The Work, 2023).
4. Level 4 – Brand Building: Creativity improves the brand's fundamental brand health measures. These fundamentals include awareness, preference, image attribute ownership, consideration, and purchase intent. For example: P&G started a global "Thank you, mom!" movement. The brand aimed to become the "Proud Sponsor of Mom" and to position mom as the real hero behind every Olympian by telling mom-focused brand stories that greatly improved the familiarity, favourability and trust in P&G, and increased sales across the company's whole product line (P&G, 2013).
5. Level 5 – Commercial Triumph: These campaigns use creativity to increase market share and sales beyond a single quarter or beyond the duration of the campaign. For example, Wrigley's Extra released an advertisement for their Spearmint gum that had an unexpected and emotional twist and included the "Give Extra, Get Extra" mantra. The brand attained incremental sales growth over the next 16 months (PSU, 2023).
6. Level 6 – Enduring Icon: Brands that identify as an enduring icon use creativity to consistently increase sales and brand growth over a minimum of three years. The same creative strategy is used during this period, resulting in sustained commercial success (Hurman and Field, 2020). For example: Snickers has celebrated more than 10 years of recognition due to the enduring "You're Not You When You're Hungry" campaign (Taylor, 2022).

Although enduring icon status is viewed as the ultimate brand goal, according to Hurman and Field (2020) it is important to aim for the level on the ladder that aligns with the campaign objective that has been set. In their research they discovered the critical role of a campaign's degree of creative commitment in determining creative effectiveness (Jacob, 2021; Page, 2020).

CREATIVE COMMITMENT

Creative commitment is a composite measure of media budget, campaign duration and the number of media channels included across a campaign (Hurman and Field, 2020; Page, 2020). Increasing these factors, will increase overall creative commitment and result in improved creative effectiveness (Murray, 2023). Across the globe the marketing and advertising industry have been reducing its creative commitment since 2015 by reducing campaign duration, spending less on advertising, and focusing more readily on online and social media platforms rather than other channels (Jacobs, 2021). These actions are predicted to mitigate the return on investment of creative work (Hurman and Field, 2020) and to hamper a brand's probability of achieving enduring icon status.

ACHIEVING ENDURING ICON BRAND STATUS

Campaigns for enduring icon brands use creativity over an extended period of three years or more to consistently drive sales and brand growth (Hurman and Field, 2020; Kantar, 2017). Thus, as mentioned before, enduring icon brands contribute to sustainable commercial outcomes by using the same creative strategy for at least three years, but often longer (e.g. Snickers, Dove, etc.) (Hurman and Field, 2020).

Achieving enduring icon status through advertising can be described as creating content that stands the test of time – a brand creates work that outlives consumers' time with a brand. Therefore, the work created should be defined for both the brand and the consumer (Hurman and Field, 2020; Wachtel, 2022). Symbols that are presented in enduring icon campaigns should also remain consistent, as such symbols are a visual manifestation of archetypes (Westley and Folke, 2018). Symbols are described as the manifestation of the gathered unconscious, which implies the order of human existence. According to Westley and Folke (2018), the bigger the interest and appeal of a symbol, and the more time the appeal endures, the higher the chance that the person and symbol will be linked to each other in what is known as the combined unconscious. In the case of enduring icons both creative messaging and media channels matter. Research indicates that enduring icon campaigns typically favour traditional lead media (such as television), whilst creative strategies such as emotion, storytelling and celebrity involvement often feature (Hurman and Field, 2020).

PROBLEM STATEMENT

There is an agreement amongst researchers and practitioners that creativity is an essential element for successful advertising in today's cluttered marketplace (Goldenberg, Mazursky and Solomon, 1999). Given the fact that creativity and creative effectiveness is contextual, it is important to understand the state of these concepts within specified contexts. In South Africa, research published about advertising creativity is scant and thus here is a gap in knowledge about the state of creativity in the South African advertising context, in particular, considering the release of The Effectiveness Code whitepaper and the impact COVID-19 exerted on the budgets devoted to creative projects (thus, the effect on creative commitment). Hurman and Field (2020) emphasise the importance of a standardised approach for assessing creative effectiveness and state the important role of creative commitment in driving creative effectiveness. However, in South Africa no publications has explored creative effectiveness or creative commitment, leading to several questions: to what extent is the South African advertising industry aware of The Effectiveness Code and creative commitment; is creative effectiveness and creative commitment implemented, measured, and sustained in a similar manner in South Africa as in the rest of the world (do the same rules apply); is the enduring icon concept a familiar idea in South Africa, and; which brands in South African can be viewed as enduring icons for benchmarking purposes? In a global economy where many consumers are influenced by the cost-of-living crisis and many brands are reconsidering their marketing spend, the matter of effectiveness seems to be growing in importance. The purpose of the study is thus to explore the state of creativity and associated key concepts in advertising from the perspective of South African advertising experts.

RESEARCH OBJECTIVES

The objectives of the research were to gain a greater understanding of:

1. The state of creativity in the South African advertising industry

2. Creative effectiveness and creative commitment within the South African advertising context.
3. The enduring icon concept within the South African advertising context.

Ultimately, the research acknowledges the importance of a contextual understanding of creativity and creative effectiveness, and the adoption of standardised criteria for global and local benchmarking. A knowledge of these concepts can contribute to greater advertising industry performance, both locally and abroad. Such performance, in turn, can potentially contribute in a positive manner to talent retention and healthier brands in the form of enduring icons. Due to exploratory nature of the research objectives, qualitative research was conducted and will be discussed in the following section.

RESEARCH METHODOLOGY

The study employed primary and secondary research to explore the phenomena of creativity, creative effectiveness, creative commitment, and enduring icon status within the South African advertising context. A discussion of the research design, research participants, data collection and data analysis will provide clarity.

RESEARCH DESIGN

The secondary research is reflected in the literature review of this document and the analysis of the respondent interviews. Extant knowledge from reputable sources were reviewed. The whitepaper titled "The Creative Effectiveness Ladder" by Peter Field and James Hurman (2020) was particularly relevant to gain a better understanding of current, global views pertaining to the key concepts of the study.

The primary research was exploratory in nature and employed a qualitative, interpretive, phenomenological approach. In an attempt to address the research objectives and to contribute to the lack of research related to creativity, creative effectiveness and creative commitment in the South African advertising industry, semi-structured interviews with advertising experts were deemed suitable as data collection approach (Zikmund, Carr, Griffin, Babin and Carr, 2013).

DATA COLLECTION AND RESEARCH PARTICIPANTS

The semi-structured interviews that were selected as data collection method allowed for an interview guide with pre-empted questions (available upon request), as well as open-ended responses and further discussion. Sampling for this study utilized a non-probability, convenient sampling technique. Advertising experts (based in South Africa) who have demonstrated their expertise through the positions they hold, their experience and/or the work they have created in South Africa were considered. The time constraints of the research and the busy schedules of the envisioned interviews inferred early in the research process that the number of interviews that would be secured within the available time-frame could potentially be limited. However, given the exploratory nature of the research, topic expertise weighed higher than sample size. After five interviews with high-profile participants (e.g. creative director, head

strategist, CEO, agency founder) it was agreed that saturation was reached in terms of the high-level research questions. Advertising leaders affiliated with South African-based advertising agencies, the Loerie Awards board, and the Creative Circle board were invited to participate. Five hourlong interviews were conducted (participant profiles available upon request) and the interviews were recorded with permission and transcribed. As mentioned before, despite the limited number of participants, the similarity in responses indicated that a level of saturation could be assumed. To ensure data security, the collected data was stored on two different external hard drives.

DATA ANALYSIS

During data analysis, the Interpretative Phenomenological Analysis (IPA) was employed to provide an in-depth and personal understanding of advertising experts' experiences and views related to the concepts addressed in the study (Brown, 2008). The data analysis involved coding the data into clear themes, which were labelled systematically to facilitate ease of analysis. Three coding phases took place: structural coding, descriptive coding, and pattern coding. This approach allowed for the comprehension and identification of connections between the data collected across the interviews. The interpretation of the primary data involved identifying recurring words or phrases, which served as indicators of themes (Dates, 2021). The frequency and relevance of discussions about specific topics by the interviewees were considered to generate themes. The accuracy of the data was ensured by cross-checking it against the proposed theoretical themes (Pryor, Higgins, Jones, Lavoie, Donnelly, Corral, Procter, Halfpenny, Voss, Collins, Treloar, Choudhury, Michener and Whyte, 2018). By considering the primary research findings and learnings from the secondary research, inferences could be drawn, and ten insights were generated.

VALIDITY

Descriptive, interpretive, and theoretical validity were considered in this investigation. The literature review was based on credible sources, including academic journals and the data was presented as reported by the participants. Interpretive validity was ensured by focusing on participants' perceptions of the phenomenon and refraining from making judgments based on personal values (Junior, Abib and Hoppen, 2019).

FINDINGS AND DISCUSSION – TEN LESSONS FROM THE EXPERTS

Participants shared their thoughts and opinions pertaining to the current state of creativity, creative effectiveness, creative commitment, and enduring icon status, all related to the South African advertising context. From the primary and secondary research, various relevant themes were identified. The findings were consolidated into ten insights for future consideration by brands and advertising agencies.

INSIGHT 1: THE GOOD AND BAD OF THE STATE OF CREATIVITY IN SOUTH AFRICA

The creativity experts interviewed seem to agree on the state of creativity in South Africa, namely that South Africa has immense creative talent, and that the industry is energising, exciting and interesting. However, the schooling system fails to support the development of

creative ability. The work developed by creatives in the South African advertising industry often includes big successes that is achieved against many odds (for instance, budget constraints and short-term client visions), but these odds are also the cause of a large cohort of substandard work.

INSIGHT 2: THE IMPORTANCE OF CONTEXT FOR UNDERSTANDING THE STATE OF CREATIVITY

History is filled with examples of how humans were forced to be creative to survive. This notion seems to be a driving force behind South Africa's creative talent and the creative work produced. The experts acknowledge that creativity in South Africa may be motivated by internal and external surviving mechanisms to adapt to contextual challenges such as the cost of living and less than ideal living conditions. These challenges present opportunities to be creative as South Africans who experience struggle feel impelled to generate creative ideas to improve their situations. Context also influences creativity from a geographical perspective. Admirable advertising campaigns have been developed that reflect interesting references to aspects related to geography, for instance language (e.g. Wimpy – I love it when you speak foreign), and cultural idiosyncrasies (typical to Nando's and Chicken Licken advertising). Finally, context is relevant to creativity for inspiration – the beauty of the natural environment in South Africa might also contribute to the award-winning creative work produced.

INSIGHT 3: GLOBAL APPRECIATION FOR SOUTH AFRICAN CREATIVITY AND THE TALENT DRAIN

The creative work produced in South Africa across various categories (e.g. advertising, music, fashion) is appreciated worldwide and found globally relevant – “South African music is being played in London, New York, and Amsterdam.” The recognition of South Africans' creativity in terms of advertising is reflected in the number of awards South African creatives receive when participating successfully in international competitions, such as the reputable Cannes Lions International Festival of Creativity. The global appreciation for South African creative work has also resulted in local talent being recruited to creative teams across the world. At the time of this research, for instance, one of the panel members was appointed at one of the best European advertising agencies, based in Amsterdam. South Africa is thus experiencing a creative talent drain, with some creatives returning after gaining a few years of global experience (as was the case with another panel member).

INSIGHT 4: THE IMPORTANCE OF FOSTERING CREATIVE ABILITY

Experts agree that all people are born creative (“we are naturally good at it”), but that creativity is to a large extent suppressed by the South African schooling system. For creativity, creative thinking and creative problem-solving to thrive, the nourishment of creative ability requires dedicated attention from a young age. However, experts are of the opinion that decades have passed with little evidence of evolution in the school classroom compared to radical changes happening in all other aspects of people's lives. It is said that, as technology is growing, people might become even more reliant on creativity and the traditional schooling model might have to be disrupted to foster the development of creative ability, emotional intelligence, and spiritual intelligence. Some seem to criticise this idea of disruption, due to the potential costs involved.

However, the premise of creativity is to use what already exists and to rethink it to more effectively address continuously changing needs.

INSIGHT 5: AWARENESS OF THE CREATIVE EFFECTIVENESS CODE

The debate about whether creative advertising is more effective than less creative campaigns seems to have been settled in the minds of advertising experts decades ago. However, financial managers have generally disagreed with this belief. The book titled *The Case of Creativity* (Hurman, 2011) set out to prove the relationship between creativity and a positive return on advertising investment. The book was followed by research commissioned by the Cannes Lions and WARC and, consequently, a whitepaper (internationally available) and the Creative Effectiveness Code (Hurman and Field, 2020). Although South African experts were in agreement about the growing importance of effectiveness in advertising, not all were equally familiar with the code. Of those who were aware of the code, not all had presented it to their clients, mentioning the short-term coping mechanisms adopted by brands to recover from

COVID-19-induced losses as a major constraint in their clients' current approach to advertising. Embracing the findings from the code holds several potential benefits (e.g. long-term brand health and income growth) and could be used in nudging clients back to a more long-term focus of brand-building rather than mere short-term buzz for immediate financial gains.

INSIGHT 6: CREATIVE ADVERTISING AND EFFECTIVENESS IN SOUTH AFRICA

As previously inferred, there seems to be an evolution from the traditional view that creativity and effectiveness are on opposite sides of the spectrum. Also in South Africa, experts agree to the important relationship between creativity and effectiveness and embrace the concept of creative effectiveness. The reason for the growing importance of creative effectiveness was mentioned more than once: the pursuit of impact. The acknowledgement of creative effectiveness by the South African advertising industry was reflected in the introduction of the Effective Creativity category by the Loerie Awards in 2013. The Cannes Creative Effectiveness Lions category was introduced in 2015, signalling the global importance of advertising that is both creative and effective. Unfortunately, there seems to be agreement that creative effectiveness in South Africa is declining. One expert stated: "Only 1% of the work done in South Africa is genuinely effective." This comment concurs with previously mentioned views about the decline of creativity in the South African advertising industry and the lack of client budgets for the pursuit of creative effectiveness.

INSIGHT 7: THE COLLAPSE OF CREATIVE COMMITMENT

The decline in creative effectiveness in the South African advertising industry can partially be blamed on the collapse of creative commitment. These views from the South African experts align with the findings of Hurman and Field (2020). Creative commitment is a multi-faceted concept (referring to media budget, duration of campaign, number of media channels used) that was propelled into the domain of tactical decision-making by the financial constraints faced by many brands following COVID-19 and given the current economic climate. Although "people have been spending again since COVID", the focus is on immediate results and "short-term sales spikes" with little regard for long-term brand building. Also, digital assets have become even more popular than before as clients view it as more measurable in an industry

where it is often “the intangible” that adds more value. One participant mentioned: “You can only do great work when you've got a client who is greatly creatively committed.” In addition to client demands for results, it is agreed that advertising creatives are also responsible for the decline in creative commitment and effectiveness: “when a new team comes in, they want to change everything” – “we get bored too quickly and are not committed to brand building as much as we should.”

INSIGHT 8: CREATIVE COMMITMENT – A COLLABORATIVE EFFORT

In general client marketing budgets have been reduced and thus, as mentioned before, the focus has shifted to short-term campaigns and immediate sales. Consequently, advertising agencies feel pressured to drive their clients' marketing budget into tiny increments, rather than committing to the implementation of big, even risky (“commitment does show up in a willingness to break the rules”) ideas. The question arises – if creative commitment is recommended for brands, but current actions are quite the contrary, who will take responsibility for the turn back towards long-term brand building? Participants are of the following opinion: “The more commitment there is from the client, the marketing, the advertising, and the agency side, the more there is a shared commitment and a shared purpose” - “right from the chief marketing officer to all the partners on this journey of being creatively committed.” Thus, a collaborative effort seems to be the solution. However, participants further agree that: “Creative commitment starts with the agency.” The important responsibility of advertising agencies to educate their clients about the necessity of creative commitment was mentioned more than once. Not only is greater commitment beneficial to the brand, but “advertising agencies that are more committed to creativity are more sustainable, and they are more likely to make more profit.” Given the role of media in creative commitment, participants also emphasised the relevance of research about how consumers consume media, given the shifts brought about by COVID-19.

INSIGHT 9: THE PURSUIT OF ENDURING ICON STATUS

The impetus for creative effectiveness and creative commitment lies in the achievement of enduring icon brand status. Enduring icon brands seem to inherit a place in consumers' hearts. However, participants agree that the number of enduring icons in South Africa is limited. They continue to describe enduring icon brands as those that: can be clearly described in even one word; continuously commit to their position; remain reliable and consistent; keep the same train of thought and campaign running over long periods of time; hold meaning to large portions of the population; serves the population; help consumers make sense of the world; are part of everyday life and have been able to stay relevant by reinventing themselves; are well-supported from a marketing point of view, and; “come up with functional, emotional, expansive, and shapeshifting ideas.” Enduring icon brands “can stretch into many different pockets and spaces of culture because you're very clear on what you stand for as a brand.” **Insight 10: Inspirational enduring icons in South Africa**

Achieving enduring icon status requires long-term commitment. South Africa might have a few noteworthy candidates, but only a few prevail as true icons. Participants mentioned the following brands as potential enduring icon examples from South Africa: Sunlight (liquid); Chicken Licken, Clover, and

Nelson Mandela. However, the South African brand that is viewed as the most iconic is Nando's. Snickers was mentioned as an international example. Nando's was the first brand

that was mentioned when participants were requested to elaborate on a South African enduring icon example. The following aspects were mentioned as the reasons for this status: Nando's has a powerful brand idea at the heart of what they do; they speak across generations; they are consistent; they are loved by South Africans over time; they are clearly differentiated; there is a strong alignment between their promotional work, the brand and the product they sell, and; they are willing to take risks.

CONCLUSION

In this research the views of South African-based advertising experts pertaining to creativity, creative ability, creative effectiveness, creative commitment and enduring icon brand status were explored by means of qualitative interviews. Insights were gained pertaining to the state of creativity in South Africa, the importance of context in understanding creativity, global appreciation for South African creativity and the associated talent drain, the importance of fostering creative ability, awareness pertaining to the effectiveness code, creative advertising and effectiveness in South Africa, the collapse of creative commitment, the need for collaboration to restore creative commitment, the pursuit of enduring icon brand status, and inspirational enduring icons in South Africa. In conclusion, the South African advertising industry produces noteworthy creative work. Unfortunately, the potential long-term impact of such work is undermined by a short-term focus on immediate results and a decline in creative commitment. This paper calls for advertising agencies to embrace client education and to encourage the pursuit of enduring icon status as a symbol of brand health and sales growth.

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Building competitive MCC brands through marketing strategy adaptation during the Covid-19 pandemic: evidence from Western Cape winelands, South Africa

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ABSTRACT

Purpose: Adaptation capabilities are central to firms' survival during global crises. The Covid19 pandemic disrupted business environments globally, and this highlighted the importance of strategy adaptation. This study explored marketing mix adaptation in the South African wine sector during the Covid-19 pandemic.

Methodology: An exploratory qualitative research approach was adopted. To extrapolate indepth insights on marketing strategy adaptation during the Covid-19 pandemic, interviews were conducted with Méthode Cap Classique (MCC) marketing managers who were responsible for marketing strategy formulation of selected South African wine brands.

Findings: Of the four Ps of marketing, *product* and *price* were not adapted during the Covid19 pandemic. Price adaptations were solely influenced by sin taxes in yearly government budget speeches. However, the environment necessitated *place* and *promotional* strategy adaptation.

Value/contribution: This study empirically interrogates the relevance and usefulness of the traditional marketing mix in current business environments.

Key words: South Africa, Wines, Marketing strategy, Adaptation, MCC, Covid-19 pandemic.

INTRODUCTION

The Covid-19 pandemic (WHO 2020) is one of the largest human health crises in recent history. Beyond its devastating impact on human health, the pandemic also adversely impacted global business. Globally, brands endured the daunting task of navigating uncertain markets, coupled with changing consumer behavior. Global economic instability heightened due to preventative measures such as prolonged temporary shutdowns of the alcoholic beverage sectors (Niros, Niros, Pollalis, and Ding 2022). This compelled brands in these sectors to refine and adopt their marketing strategies to suit new and unfamiliar market dynamics (Basu and Swaminathan 2021). Marketing managers were obliged to adopt innovative, market-driven strategy approaches which considered the new pandemic-based business environment (Cravens and Piercy 2013).

Fundamentally, innovative marketing strategy encompasses strategic modification of the marketing program (product, price, place, and promotion) to meet customer value requirements (Kamarulzaman, Khairuddin, Hashim, and Hussin, 2021). Moreover, to adapt to unprecedented market environments, marketing programmes need to be reinforced by

segmentation, targeting, and positioning strategies. The two approaches are somewhat divergent, in that the latter concerns consumer behavior and marketing analytics. This study explored marketing program adaptation to build competitive *Méthode Cap Classique* (MCC) brands during the pandemic (Sheth 2021). Brands are valuable assets for firms as they endow products with added value through differentiation and identification elements. They play a significant role in consumers' product evaluation, as they empower consumers to identify quality differences (Boisvert and Ashill 2022). However, to build competitive brands in enigmatic market environment such as the Covid-19 pandemic requires marketing strategy adaptation. We explored this supposition in the wine sector in the Western Cape Province, South Africa. The rest of the paper is structured as follows. Firstly, we explicate extant literature through the lens of a marketing strategy development framework, followed by a discussion of the study's context. The identified research gap and suitable research methodology are then elucidated. Finally, research findings, discussions and conclusions are presented.

MARKETING STRATEGY

Developing a marketing strategy is a cumbersome exercise due to the complexity of the construct. Building a marketing strategy is a multifaceted process. Fundamentally, this process consists of market analysis, strategy development, and implementation of activities on set objectives about the market(s) of interest to the firm (Cravens and Piercy 2013). So, successful marketing strategy relies on an effective fit between a firm's internal resources and distinctive capabilities, and its external environment. The current study concerns the former (Ibrahim and Harrison 2020). Therefore, central to marketing strategy formulation is the development of a suitable marketing program coupled with strategic brand positioning to meet the value requirements of both the firm and its customers (Ries and Trout 2001).

A marketing program is the cornerstone of marketing theory and is primarily constituted of elements such as product (firm's offering, goods/services), price (total cost to acquire the product), place (product availability, physical/virtual), and promotion (communication tools to build brand awareness and knowledge) (McCarthy 1960; Borden 1964; Issock, Mpinganjira, and Roberts-Lombard, 2021; Sheth 2021). Marketing managers use these components to tailor their marketing strategy to meet firm-customer value requirements, hence their roles are somewhat paradoxical (Abedian, Amindoust, Maddahi, and Jouzdani, 2022). In essence, marketing programs are formulated by a mixture of internally controlled marketing variables and activities to pursue sought-after markets for profit purposes. Even though competitor orientation and intelligence are important, marketing programs are constructed within the confines of firms, which thus adopt an internal orientation (Lahtinen, Dietrich and RundleThiele, 2020). The current study investigated how MCC wine estates adapted their marketing programs during the Covid-19 pandemic to build competitive brands.

Primarily, marketing program adaptation includes product redesign and packaging, new pricing strategies, restructuring distribution channels, and devising a relevant promotional mix (Mensah and Quaye 2019). To adapt their marketing mix, Nath (2020) suggests that marketing managers should be guided by exploitation and exploration strategies. The former approach allows firms to identify and rectify gaps in known context to improve existing behavioral routines. Whereas through exploration, firms develop new cognitive frames of reference that suit new and changing contexts. For instance, the Covid-19 pandemic required exploration as firms in various sectors had to unlearn existing behavioral routines to adapt. Therefore, the usual or familiar marketing approaches were challenged to interface with adapted marketing strategies to remain competitive during the pandemic.

Compared to other calamities such as global economic downturns, the Covid-19 pandemic offered brand marketing managers unique challenges (Farhang, Kamran-Disfani, and Zadeh, 2022). Preventative measures such as closures of restaurants and other entertainment

establishments severely impacted the alcoholic beverage sector. Consequently, brand marketing managers had to augment their marketing programs to build competitive brands.

BRAND BUILDING

Brands are considered valuable assets for both consumers and firms (Boisvert and Ashill 2022). They offer functional and emotional benefits to consumers and promote strong customer-brand relationships (Sander, Fohl, Walter, and Demmer, 2021). Furthermore, they play a significant factor in consumers' product evaluation and purchasing decisions because they enable consumers to identify quality differences. On the other hand, through brandings, firms can differentiate their offering in the market (Alvarado-Karste and Guzman 2020; Woo and Kim 2022). Brand differentiation is created through unique features such as brand elements (names, logos and slogans) (Keller and Swaminathan 2020). These elements primarily contribute to building brand knowledge (Qiao and Griffin 2022). Therefore, brands are conceptualized as perceptions that reside in consumers' minds, whereas branding is understood as a firm-based practices for differentiation purposes. This study concerns the latter.

Historically, however, traditional marketing scholars paid little or no attention to branding as an integral element within a marketing strategy. Fortunately, the seminal work of Philip Kotler and Kevin Keller shifted the paradigm (Kotler and Keller 2009; Bastos and Levy 2012; Beverland 2018). Branding and brand management are now considered the cornerstone within a broader marketing discipline (Zhao, Calantone, and Voorhees, 2018). Hence, overlooking branding within a marketing strategy would now prove to be a costly oversight. Therefore, we submit that to build competitive brands, a comprehensive marketing strategy should entail a brand strategy. We explored this supposition in the South African wine sector specifically focusing on MCC brands.

BRANDING WINES

The wine industry is extremely fragmented; thus branding is critical to create points-of-difference for firms to build competitive brands (Keller and Swaminathan 2020). Building competitive brands is of utmost importance in this sector due to increasing regional and global competitiveness (Aranda, Gomez and Molina, 2015). However, empirical branding research in this sector is scant. Blair, Atanasova, Chan and Wallstrom (2017) explored brand equity of luxury wine brands to determine whether significant differences in wine brand equity exist. Butcher and Pecot (2022) studied luxury wine brand heritage visual identity on digital media. This study for instance depicted how critical identity sub-dimensions such as country of origin, brand symbol, and consumption ritual appear. Similarly, Paunovic, Obermayer and Kovari (2022) studied brand identity and brand image in small and medium enterprise family wine brands. This study sought to compare brand identities in two regions, and how brand image is communicated in digital media. Family wine branding was also explored by Berndt and Meintjes (2023). This study established that even family brands apply corporate identity and corporate personality and expression to build competitive wine brands.

However, wine brands differ in the process of making the wine and thus differ in qualities depending on the region and wine origin. Therefore, regional brand differentiation is a critical factor in building competitive wine brands (Aranda *et al.* 2015). The current study explored how South African wine brands augmented their marketing programme to remain competitive in the Covid-19 environment. South Africa is the 7th largest wine-producing country in the world, boasting over 500 wineries spanning 24 wine of origin production regions on 22 wine routes. Route 62 is the longest wine route in the world at 850 kilometers between Cape Town

and Gqeberha (previously Port Elizabeth) (Lombard 2016; Kruger and Viljoen 2022). Even though comparative research suggests that SA is largely a beer drinking country, the country accounts for nearly 60% of Africa's wine consumption (Colff, Pentz and Nieuwoudt, 2019). This sector was adversely affected by Covid-19 related shutdowns as the sector heavily relies on exports. The current study primarily focused on MCC brands due to territorial or geographic boundaries. MCC is both a regional product and product category within the South African wine industry (Kunc, Menival and Charters, 2019).

MÉTHODE CAP CLASSIQUE (MCC)

Méthode Cap Classique is a process of producing sparkling wine unique to South Africa. Ranging from a particular way of harvesting the vineyards and selecting individual styles of grapes, to a specific fermentation process, MCC production process is characterized by high standards of agricultural practices. Even though the term Méthode Cap Classique started being used in 1992, Simonsig wine Estate produced the first South African sparkling wine through this traditional method in 1971. There are currently over 85 registered MCC producers in the South African wine sector (Malin 2019; Capclassique 2023). Furthermore, there are three varied styles of MCC, their main criteria being vintage, cultivar and sugar level. Vintage refers to the year in which the grapes have been harvested and cultivar refers to the type of grapes utilized. Grapes are selected by diversity of regions within South Africa, thus resulting in individual styles (Malin 2019; Cap Classique Producers Association 2020).

Sparkling wines are no longer seen as occasion-based beverages but lifestyle drinks in the South Africa alcoholic beverage industry. Consequently, this consumer behavior shift has led to popularity and demand for MCC brands in this market. Moreover, MCCs are competing in international markets with well-established sparkling wine categories such as champagne and Cremants from France, Cava from Spain, Franciacorta from Italy, and Sekt from Germany (Mokonotela 2020). However, even though South Africa wine sector competes well on a global market, it is largely an export sector. This can be attributed to a myriad of factors including comparatively weak local demand. In the year 2020 wine consumption decreased by 19.4% compared to 2019 – this was the lowest consumption in the previous 20 years (IOVW 2020). This decline can be directly attributed to the Covid-19 pandemic, when local alcohol sales were banned for prolonged periods (Kruger and Viljoen 2022). We investigate how MCC brands adapted their marketing strategies to remain competitive during the Covid-19 pandemic.

RESEARCH GAP

Marketing literature on the impact of global crises on global business is underdeveloped (Zolfagharian and Yazdanparast 2019). Marketing managers need to devise urgent strategies as a response to crises, yet they lack reliable points of reference. Through a marketing exploitation and exploration lens, this paper empirically investigated crisis response and management in the South African wine industry: specifically, we investigated how MCC marketing managers adapted their marketing program as a strategic response to the Covid19 crisis (Thakur and Hale 2022). Through the perspective of marketing exploitation and exploration, the study sought to establish how marketing managers adapted their marketing strategies to improve and refine their marketing program, and how existing or prior approaches were revised to adapt to the Covid-19 environment (Nath 2020). Therefore, this study addressed one fundamental research objective.

- To explore how MCC marketing managers adapted their marketing programmes during the Covid-19 pandemic to remain competitive.

STUDY SAMPLE

We applied non-probability judgmental sampling techniques. Accordingly, to extrapolate in-depth insights on marketing strategy adaptation in the sector, we conducted depth interviews with marketing managers at selected leading wine estates that produce MCC (Babin and Zikmund 2016). This technique is consistent with literature (Malhotra *et al.*, 2017); in exploratory research, personal interviews with industry experts are encouraged, hence the sample are small and non-representative. Data saturation was evident after 10 marketing managers from 10 wine estate brands were interviewed, and concordantly saturation became apparent at 15 marketing managers from 15 wine estate brands. A retrospective theory review indicated that this process too was consistent with literature. In qualitative studies conducted in homogeneous contexts, saturation may occur after six interviews and become evident after twelve interviews (Boddy 2016). The interviews were audio recorded, then transcribed to textual format whereafter ATLAS.ti software was used for data analysis and reporting of findings.

RESEARCH FINDINGS AND DISCUSSIONS

This research primarily explored marketing strategy adaptation to build competitive MCC brands during the Covid-19 pandemic. To achieve this objective, the study applied marketing exploitation and exploration approaches. In the former approach, the current marketing program is improved and refined, where marketing exploration alludes to revising the marketing program to respond to crises (Nath 2020; Stoyanov 2021).

The study's objective was achieved, and findings are presented below. For purposes of confidentiality, the 15 wine estate brand names are concealed – for instance, findings from the first and second wine estate brands are referred to as MCC-A, MCC-B, etc. Findings are presented in direct quotations as elucidated by marketing managers. Citations from ATLAS.ti coded interview transcripts are referenced as follows: 1:3 *We have changed our packaging* (2184:2357). This indicates that the quotation comes from the first MCC brand to be interviewed, and the quotation is the third to be coded from the interview transcript. The quotation starts at character 2184 and ends at 2357 in the specific transcript. Accordingly, findings are presented in accordance with marketing mix adaptation and firstly, we look at product.

Product refers to a firm's offering and may include the production process, features, benefits, design, packaging, style and design, etc. (Lahtinen *et al.*, 2020; Abedian *et al.*, 2021).

MCC-A 2:1 *as far as the product is concerned, there's been no change... (778:841).*

MCC-B 3:4 *So luckily for us, Covid-19 did not have such a large impact on the production of the MCC or the Cap Classic as we do a very small production on it at the moment (4243:4400)*

MCC-D 5:12 *the offering itself, uh hasn't changed at all (10643:10686)*

MCC-E 6:1 *So how did we change anything, we haven't changed anything (985:1042)*

MCC-H 9:1 *We continued producing good wines and are still producing the same type of MCC what we started in 2015. So it's there was no specific change regarding MCC due to Covid (1587:1755).*

MCC-I 12:1 *So this is a very slow-moving wheel. So, there's no sudden changes in the wine industry. Whatever you put in place, in effect, takes almost about two years to really make a change. So Covid did not have any effect (1473:1685)*

MCC-J 15:1 *We didn't change anything. No, everything's still the same (1847:1905)*

Even though it may seem inconceivable that MCC product brands and their production were not adversely impacted by the Covid-19 pandemic, the findings presented above are compelling enough for this study to conclude that MCC product strategy in the South African wine sector was not adapted due to the Covid-19 pandemic. Furthermore, the findings from MCC-I indicate that this apparent avoidance of the pandemic's consequences can be directly attributed to the prolonged conventional process of producing wine.

Comprehensive findings of MCC marketing program adaptation during the Covid-19 pandemic are presented in Table 1. Figure 2 below presents findings from MCC brands and their marketing activities relating to promotion. Promotion alludes to the marketing communications used to communicate the product and its features and benefits to current and potential customers (Pantano, Priporas and Migliano, 2019; Cruz-Milan 2021).

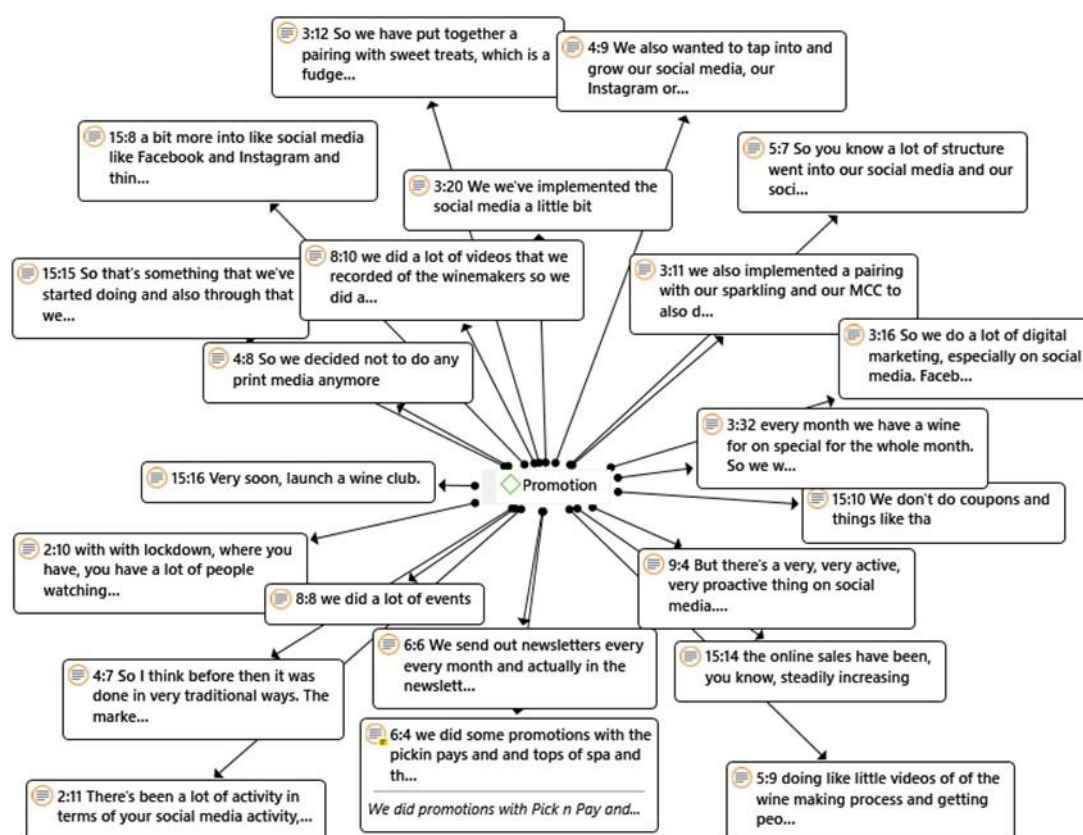


Figure 2: Promotion findings code network

Source: Authors' notes on ATLAS.ti project

Conversely to lack of product strategy adaptation, Figure 2 presents some of the promotional strategies and tactics undertaken by MCC brands to deal with the Covid-19 environment. Of interest is how some brands utilized videos to demonstrate the MCC-making process during the pandemic. Moreover, the use of social media was an expected finding considering that digital media are ubiquitous across various sectors. Therefore, Figure 2 provides conclusive evidence that MCC brands adapted their promotional strategies to remain competitive during the Covid-19 pandemic. Table 1 below presents consolidated findings on how MCC brands adapted their marketing program during the pandemic. As elucidated earlier, product strategies remained constant. Concordantly, pricing strategies were not influenced by the

Covid-19 environment. On the other hand, MCC brands adapted place/distribution and promotion to remain competitive.

Marketing Programme

Product	2:1 As far as the product is concerned, there's been no change to (778:841). 3:4 So luckily for us, Covid-19 did not have such a large impact on the production of the MCC or the Cap Classic as we do a very small production on it at the moment (4243:4400). 5:12 the offering itself, uh hasn't changed at all (10643:10686). 6:1 So how did we change anything, we haven't changed anything (985:1042). 9:1 We continued producing good wines and are still producing the same type of MCC what we started in 2015. So it's there was no specific change regarding MCC due to COVID (1587:1755). 12:1 So this is a very slow moving wheel. So there's no sudden changes in the wine industry. Whatever you put in place, in effect, takes almost about two years to really make a change. So COVID did not have any effect (1473:1685). 15:1 We didn't change anything. No, everything's still the same. (1847:1905).
Price	3:7 So we implement an annual price increase yearly which take place on the 1st of March and with the COVID pandemic starting in March 2020, we already had our price increase set in place because that was on the 1st of March and the pandemic or the lockdown only started end of March (5079:5373). 4:2 We didn't increase the price because of Covid per say, we usually have a price increase every year in March and we have stuck to that (3183:3438). 5:4 So we did a competitive analysis on the products, and we've actually had to. Basically, keep our pricing within the ranges with our sort of main competitors and which does affect our margin (1769:2150). 8:3 So We actually haven't changed our pricing strategy, in the wine industry it's quite a challenge just to change. You sort of get an opportunity while see you maybe twice a year, but sort of once a year to change your pricing (5871:6123). 9:2 We do general price increase every March after the budget speech (1985:2048). 15:5 We didn't increase prices this year... (3518:3564).
Place	3:14 So we have three different courier companies that we make use of. We don't have our own in-house Courier. So depending on the area and the cost of delivery would differ. But we do have companies that deliver for us nationwide so you can order from anywhere in South Africa to have it delivered to your... (8772:9091). 3:15 Everything that we have available at the tasting room you would find online, the only time when you will not is if we are out of stock or waiting on the new vintage to be released (9255:9535). 4:3 So one thing that did happen in COVID is our online sales increased. I think everybody's online ecommerce increased a lot (4525:4646). 5:5 So with the pandemic, we obviously had lockdown, which caused us to have to look at how we how we get route to markets, so a big focus on that was on online (3517:3835). 6:5 We already had direct customer purchases before the pandemic began, but it became very much bigger during the pandemic. And it's still very big right now (3129:3297).

Promotion	2:11 There's been a lot of activity in terms of your social media activity... (7277:7389). 3:16 So we do a lot of digital marketing, especially on social media, Facebook... (10853:11246). 4:8 So we decided not to do any print media anymore (8811:8857). 5:7 So you know a lot of structure went into our social media and our social media plans (5936:6168). 6:4 we did some promotions with the Pick n Pay and Tops at Spa... (2421:2561. 8:8 we did a lot of events (11349:11370). 15:8 A bit more into like social media like Facebook and Instagram...(5492:5569).

Table 1: Marketing program adaptation

CONCLUSIONS

Covid-19 brought about a tectonic shift in global business both in pure services and pure goods markets, and B2B and B2C sectors (Elder *et al.*, 2022). The onslaught of the pandemic provided marketing managers with unique challenges as it highlighted the importance of strategy adaptation capabilities. We explored marketing strategy adaptation capabilities in the South African wine sector, specifically MCC brands. This study therefore sought to establish how MCC brands changed their marketing processes either incrementally by exploiting tried and tested marketing activities, or how they radically trialed new approaches in carrying out marketing activities during the Covid-19 pandemic (Nath 2020). The findings are divergent: tried and tested marketing activities were applied with regard to *product* and *price* strategies in this sector during pandemic, meaning that *product* and *price* strategies were not adapted to suit the environment. On the other hand, more radically innovative strategies were applied regarding *place* and *promotion*, meaning that strategies were adapted to deal with the unprecedented market environment.

This study addresses the academic-practitioner or science-practice gap as it makes both theoretical and managerial contributions (Alpert and Piehler 2022). Theoretically, the study contributes to the marketing strategy corpus by heeding the call to empirically test the usefulness of traditional marketing strategy variables in dealing with recent crises. Subsequently, this provides managers with insights into the effectiveness and relevance of conventional marketing strategy variables as environmental contingencies for firm survival. Therefore, our findings may prepare marketing managers to deal with similar crises in the future, as it seems that crises are becoming more common globally. Lastly, our findings cannot be generalized to global wine markets due to their regional focus. For further research, it would be interesting to investigate marketing strategies adopted in other markets to deal with the Covid-19 pandemic.

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The Impact of Destructive Conflict in An Integrative Family Business Succession: A South African Study

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ABSTRACT

This study explores the impact of destructive conflict on family business succession in South Africa and the effectiveness of an integrative approach to mitigate this impact. A qualitative research design was used to collect data from 30 family business owners and managers. The findings indicate that destructive conflict has a significant negative impact on the family business succession process, including delays, decreased business performance, and family relationship breakdowns. However, an integrative approach that integrates conflict management strategies into the succession planning process can mitigate the negative impact of conflict. The study's theoretical and practical implications include improved succession planning, better conflict management, enhanced business performance, and policy implications for government and other stakeholders. The study's limitations and suggestions for future research are also discussed. Overall, this study highlights the importance of addressing destructive conflict in family business succession planning and the potential benefits of an integrative approach.

Keywords: Destructive Conflict, Integrative Approach, Family Business Succession, and South African.

1. INTRODUCTION

Family businesses are a vital component of many economies, including South Africa. However, family business succession can be a complicated and challenging process, particularly when destructive conflict arises (Mlotshwa, 2022). Harrington and Strike, (2018:423) emphasized that conflict in family businesses can arise from a variety of sources, including differences in vision, values, and goals, as well as emotional dynamics, power imbalances, and competing interests Vardaman and Montague-Mfuni, (2021:16) stated that conflict can have a significant negative impact on the succession planning process, business performance, and family relationships. The purpose of this study is to explore the impact of destructive conflict on family business succession in South Africa and the effectiveness of an integrative approach to mitigate this impact. An integrative approach involves the integration of conflict management strategies into the succession planning process, with a focus on identifying and addressing potential sources of conflict early (Bettinelli, Lissana, Bergamaschi & De Massis, 2022: 387).

This study is significant because it contributes to the literature on family business succession and conflict management, provides valuable insights into the impact of conflict on family businesses in

South Africa, and offers practical recommendations for family business owners and managers to improve their succession planning processes and mitigate the negative impact of destructive conflict.

2. LITERATURE REVIEW

2.1 Definition of Family Business and its Characteristics

A family business is a type of business in which ownership and control are held by members of a family (Michael-Tsabari, Houshmand, Strike & Efrat Treister, 2020:69). In a family business, the family members are involved in the management, ownership, or operation of the business, and the business may have been founded by a family member or passed down through multiple generations of the family (Tabor, Chrisman, Madison, & Vardaman, 2018:64). According to Tabor, Chrisman, Madison, and Vardaman, (2018:58) family businesses often have a strong sense of shared values and vision, which are influenced by the family's culture, history, and traditions. Communication in family businesses is often informal and based on personal relationships, which can lead to both advantages and challenges (Bettinelli, Mismetti, De Massis, & Del Bosco, 2022:542). Dinh and Calabrò, (2019:57) family members in a family business are often interdependent and rely on each other for support, which can create a strong sense of loyalty and commitment. Family businesses can have a strong emotional attachment for family members, which can make it difficult to make objective business decisions (Flamini, Gnan & Pellegrini, 2021:267). However, Dibrell and Memili, (2019:6) reported that succession planning is a critical aspect of the family business, as the business is often passed down from one generation to the next. Conflicts can arise in family businesses due to the intersection of family dynamics and business decisions, and these conflicts can be both constructive and destructive. Understanding the characteristics of family businesses is important for addressing the challenges and opportunities that arise in the context of family business succession and management.

2.1.1 Challenges in Family Business Succession

Family business succession can be a complex and challenging process. Dias and Davila, (2018:63) reported that one of the primary challenges in family business succession is identifying a successor who has the necessary skills, experience, and passion to take over the business.

Porfírio, Felício, and Carrilho, (2020:253) broadly stated that family businesses can be particularly challenging because they involve family dynamics that can complicate the succession process. Family members may have different opinions about how the business should be run, which can create tension and conflict. Oduwusi, (2018:5) argued that family businesses often have to balance the interests of family members with the interests of the business. This can be particularly challenging if there are family members who are not involved in the business but have a stake in its future. Dyer, (2018:245) highlights that succession planning is essential to ensure that the business can continue to operate effectively after the current owner or CEO retires or passes away. However, many businesses fail to plan adequately for succession, which can put the future of the business at risk.

Similarly, Porfírio et al., (2020:254) argued that preparing the successor is crucial to ensure that they have the necessary skills and knowledge to take over the business. This can involve providing training, mentoring, and coaching, as well as giving the successor the opportunity to gain experience by working in different roles within the business. Vazquez, (2018:670) acknowledges that family businesses often have a strong sense of legacy and tradition, and it is essential to ensure that this legacy is maintained during the succession process. This can involve passing down family values and traditions, as well as ensuring that the business remains true to its core mission and values.

According to Bertschi-Michel, Kammerlander, and Strike, (2020:98) stated that the main challenge facing family business succession is to ensure that the successor has the necessary skills and experience to lead the business successfully. However, Kubíček and Machek, (2020:196) argued that in succession, the current management team, which may include family members, purchases the business from the current owner. In view of the study. The main challenge with this type of succession is financing the buyout and ensuring that the management team has the necessary skills and experience to run the business.

2.1.2 Conflict in Family Business Succession

Conflict can play a significant role in family business succession. As family businesses are often closely intertwined with personal relationships and emotions, the transition of ownership and management can be a source of conflict. Bettinelli et al., (2022:567) acknowledged that family members may have different ideas about how the business should be run or what its goals should be, which can lead to disagreements and conflicts. Family members may feel that they are not being treated fairly in the succession process, either in terms of compensation or decision-making authority (Mussolino, Cicellin, Iacono, Consiglio & Martinez, 2019:75). Family members may have difficulty communicating effectively about the succession process, leading to misunderstandings, miscommunications, and conflicts (Shi, Graves & Barbera, 2019). Family members may have strong emotional attachments to the business, which can cloud their judgment and make it difficult to make objective decisions. Fahed-Sreih and Fahed-Sreih, (2018:56) mentioned that the process of selecting a successor can be a major source of conflict in family businesses. In this case, different family members may have different opinions on who is the best candidate for the role, and this can lead to disagreements and tension.

Mussolino et al., (2019:79) argued that family members who are not involved in the business may feel that they are not being treated fairly or equitably in the succession process. This can lead to resentment and conflict. Waldkirch, (2020) emphasized that family dynamics can be a significant source of conflict in family business succession, sibling rivalries, parent-child relationships, and other family dynamics can all complicate the succession process. Dibrell and Memili, (2019:12) Family businesses often involve complex ownership and control structures, which can lead to conflicts over decision-making and control. Family members who feel that they are not being heard or that their opinions are not being considered may become resentful and create conflict. However, Shi et al., (2019) reported that family businesses often involve strong emotions and expectations, which can lead to conflict if these emotions and expectations are not managed effectively. Family members may have different ideas about what the business represents and what its future should be, which can create tension and disagreement.

2.1.3 The Impact of Destructive Conflict on Family Businesses

Destructive conflict in family businesses can have a significant impact on the business, family relationships, and the well-being of family members (McAdam, Clinton & Dibrell, 2020:140). Destructive conflict can disrupt business operations, reduce productivity, and lead to poor decision-making. This can ultimately harm the performance of the business and impact its financial success (Kidwell, Eddleston & Kellermanns, 2018:10). According to McAdam, Clinton, and Dibrell (2020:149), stated that destructive conflict can also impact employee morale and job satisfaction when family members conflict, it can create a tense and uncomfortable work environment that can be demotivating for employees. Similarly, Fahed-Sreih and Fahed-Sreih, (2018:68) argued that destructive conflict in family businesses can also strain family relationships and lead to long-term damage. Family members may become resentful or estranged from each other, which can impact their relationships and create emotional distress. Kidwell et al., (2018:12) explained that destructive conflict can also make succession planning more challenging. Family members who are in conflict may have difficulty agreeing on a successor or may be unwilling to hand over control of the business. Kubíček. and Machek, (2020:198), broadly stated that destructive conflict can also harm the reputation of the business, particularly if conflicts become public. Negative publicity can damage the business's brand and make it more difficult to attract customers, employees, and investors. Therefore, regarding the impact of destructive conflict, family businesses should establish clear communication channels, encourage open dialogue, and address conflicts early on.

2.1.4 Integrative Approach to Family Business Succession

An integrative approach to family business succession seeks to balance the interests of the family and the business and create a smooth transition of ownership and management. Bansal, Jain, Garg, and Srivastava, (2022) explained that the approach involves integrating family dynamics, business considerations, and succession planning into a cohesive plan that takes into account the unique needs and challenges of the family business. Hiebl and Li, (2020:783) acknowledged that effective communication is key to developing a shared vision for the future of the business and ensuring that all family members are on the same page. This can involve regular family meetings, open and honest

communication among family members, and the use of outside facilitators or mediators when needed.

Bertschi-Michel, Kammerlander, and Strike, (2020:85) emphasized that clear communication is essential in an integrative approach to family business succession. Family members need to be open and transparent about their needs, goals, and expectations. Communication should be ongoing and involve all family members and stakeholders. According to Xian, Jiang, and McAdam, (2021:167) stated that collaboration is crucial in an integrative approach to family business succession. Family members should work together to identify and agree on the best path forward for the business and the family. This can involve engaging in joint problem-solving and decision-making processes. Succession planning is a critical element of an integrative approach to family business succession (Bansal et al., (2022). Similarly, Umans, Lybaert, Steijvers, and Voordeckers, (2020:198) argued that governance structures can help facilitate an integrative approach to family business succession. Family businesses should establish clear governance structures, such as a family council or board of directors, to provide oversight and accountability. Family businesses may benefit from seeking professional support, such as legal and financial advice, to help navigate complex issues related to succession planning, tax planning, and estate planning.

Overall, an integrative approach to family business succession should also consider the preservation of the family's legacy and values. Family businesses should identify and communicate their core values and ensure that these values are reflected in the business's operations and decisions. The study indicated that by taking an integrative approach to family business succession, family members can work together to develop a plan that meets the needs of the business and the family, ensures a smooth transition of leadership, and maintains family harmony and the family's legacy.

3 PROBLEM INVESTIGATED

The primary goal of this study is to explore the impact of destructive conflict on family businesses in the context of an integrative approach to succession planning in South Africa. The study may aim to explore the factors that contribute to destructive conflict in family businesses during the succession planning process and examine how an integrative approach to succession planning can mitigate these conflicts.

4. METHODOLOGY

4.1 Research Design and Approach

The research design and approach used in a study on the impact of destructive conflict in an integrative family business succession in South Africa was dependent on the specific research questions and objectives of the study. However, here are some general considerations for the research design and approach.

4.2 Data Collection and Sample Description

The data collection and sample description for a study on the impact of destructive conflict in an integrative family business succession in South Africa. Semi-structured interviews were used to conduct with family members, employees, and other stakeholders involved in the succession process. The interviews could explore their experiences, perceptions, and attitudes toward family business succession, including the impact of destructive conflict. The interviews could be audiorecorded and transcribed for analysis. Purposive sampling was used to select participants who have relevant experience and knowledge of family business succession in South Africa. The sample size was large enough to provide meaningful insights, but small enough to allow for indepth analysis. The sample size was family members, employees, and other stakeholders involved in the succession process.

4.3 Data Analysis Methods

The data analysis methods for a study on the impact of destructive conflict in an integrative family business succession in South Africa. Qualitative data collected through semi-structured interviews can be analyzed using thematic analysis, which involves identifying patterns and themes in the data.

This can be done by coding the data, grouping the codes into categories, and identifying overarching themes that emerge from the data.

5 PRELIMINARY FINDINGS

Table 2: Categories and Corresponding theme

Broad Theme	Main Theme	Category
Dysfunctional conflict in family business	Destructive paradigms in business operation	- Folding-up/Undue labour/overstretching/Possessive instinct/Overworking - Rivalry and Competition, - Avoidance and communication breakdown, - confusion and negativism.

Theme 1: Destructive Paradigms in Business Operation

The participants discussed the destructive conflict in family business succession under different headings such as; Folding up/undue labor/overstretching, Rivalry and competition, avoidance, communication breakdown, confusion, and negativism.

5.1 Folding up/undue labour/overstretching/ Possessive instinct/ overworking

Participants in their descriptions expressed things that could destroy the business. P1, P9, and P28 opined that conflict is destructive when it leads to a shift of focus from products or services to other things that have no bearing on company goal or growth, and which brings no profit.

P 1: Hmmm, in the case of dysfunctional conflict it affects the business negatively because the results of conflict can be dangerous to both the family and the business, and conflict inside the family can disappoint satisfactory arranging and judicious choice of decision making.

P9: It causes undue stretch, it makes a harmful environment, and the individual's exterior of the struggle is affected

P28: Short-term difficulties of day-to-day business overshadow the long-term goal of business succession. If the successors do not believe that they can work on implementing the vision laid down by the founders, the business succession is unlikely to succeed.

Some participants visualize destructive business as such that leads to rivalry and sorrow. Also, such that keeps workers away from being focused and free in expression (P2, P10, P23, P24, and P26)

P 2: Hmm. The effect of dysfunctional conflict is that recognizing that success is a team effort and that part of motivating and developing others is allowing them to make decisions on their own is a great first step. Learn how to delegate and allow others to learn from their mistakes. Successful businesses are the ones that can run without a leader's constant presence and input. Besides, you will never be able to retire or take a vacation if you believe the entire business revolves around you.

P10: Dysfunctional conflict in a family business creates disputes. Conflict causes disasters by destroying good decision-making in both the family and the business.

P23: Specifically, it harmed persons involved in the conflict's emotional and psychological wellbeing, as well as causing unhappiness and stress.

P24: A family firm that lacks a structured succession plan is doomed to fail. The plan should specify how and when the torch will be passed on to the next generation. It must be a financially solid arrangement for both the company and the retiring family members.

P26: A disagreement halts development, resulting in cost and schedule overruns. There is a level of distrust between family members, and they may be hesitant to work together. In the long run, this stifles organizational growth.

5.2 Rivalry and Competition

Another approach to understanding destructive conflict is when an individual's efforts are not complementary but rather contradictory leading to failure of effort or business retardation (P3, P5, and P6).

P 3: Oh yeah in my family business one of the effects of dysfunctional conflict I perceive is jealousy can be found anywhere that family members are intent on comparing themselves to others, whether it be other family members or perhaps those in similar positions or businesses.

P 5: Dysfunctional conflict made by character distinction produces divisions, pressures, and negative reactions in common. Over time, if unaddressed, this strife will rule connections and hinder learning since of the identity-protection forms that are enacted.

P 6: Yes, the way I see dysfunctional conflict in a family business can lead to jealousy. Jealousy is a dark companion and can begin with an unreasonable and unsustainable feeling of personal inadequacy. One of the most important and most difficult lessons in life is that we can never be happy if we are not content with what we already have. Certainly, there is nothing wrong with striving for greater success and those motivations tend to drive performance, but we run into problems when success becomes a substitute for happiness.

5.3 Avoidance/Communication breakdown/disengagement

Participants described the destructive conflict as such that leads to unresolvable disorganization and strife (P15, and P17).

P15: Dysfunctional conflict is the foremost overwhelming form of social interaction and inspires emotions which can disrupt social unity, and it causes social disorder, chaos, and confusion.

P17: Yes, the effect of dysfunctional conflict can lead to destroy healthy communication and divert people from the goals they are attempting to achieve in a family business.

P30 opined destructive conflict muscicularly in the expression of it as synonymous to life destructive and destructive diseases.

Other participants also expressed destructive conflict as that leads to insult, and assault (P18, P21, and P22)

P18: Conflict may be harmful to a team and an organization, causing them to lose focus on their common goals, cooperate less, and lose members due to a lack of motivation.

P21: Individuals employ threats, verbal abuse, and dishonesty as negative outcomes of dysfunctional conflict, which ruin relationships. Both parties might lose in this sort of conflict.

P22: On the other hand, no one in the next generation always aspires to take over the business. Relationships between parents and children, as well as siblings, frequently deteriorate due to a lack of communication within the family. Criticism, judgment, and a lack of support can all result from this unhealthy behavior. You can't operate a business if you have no idea what is going on due to poor bookkeeping. When a company has bad or no numbers, which happens frequently, it is flying blind.

P7, P8, and P13 expressed non-productive conflict as such that incapacitates people from being able to do things they previously do without stress (incapacitation)

P7: Yeah, the impact of dysfunctional conflict can lead to communication breaking down, connections being affected among family members, and normal exercises being disturbed.

P8: Dysfunctional conflict in family business succession planning can be a result following disengagement occurs, people ended up inflexible in their positions, and winning gets to be the required objective.

P13: Dysfunctional conflicts don't bring approximately positive results and it harms the efficiency of an organization. In such a circumstance, both parties make an exertion to win at anything fetched. They deny communicating truly and transparently and dismiss the arrangements brought almost by the other party. Unlike, in a constructive conflict where there is regard for other workers, in dysfunctional conflict this cannot be seen.

5.4 Confusion/Negativism

Destructive conflict is further expressed as such that brings about division and subjugation. Participants report that confusion and disconnection with the goal and objectives of business ensue when conflict is destructive (P4, P19, P14, and P20)

P4: Yeah, the absence of function conflict makes it that much harder to precisely assess commerce thoughts and make vital decisions.

P19: Dysfunctional conflict leads to negativism emerging, resolutions dwindle, groups split, productivity plummets, and satisfaction plummets among the family and the business.

P14: In this instance, the effect of dysfunctional conflict creates frustration. Such conflicts usually do not strengthen the relationship but are detrimental to the working relationship. This highlights that while constructive conflicts can be good for organizations, destructive conflicts are not.

P20: A lack of concentration, vision, planning, standards, and everything else associated with effective management. When you add in squabbling partners or grumpy family, you've got a disaster on your hands.

6. DISCUSSION

In the findings of the study, destructive conflict can arise in family businesses during the succession planning process due to various factors such as disagreements over leadership roles, unequal distribution of assets, or differing opinions on business strategy. Bettinelli et al., (2020:542) emphasized the findings that conflicts can lead to a breakdown in communication, strained family relationships, and negatively impact the business's financial performance. The majority of the participants indicated that an integrative approach to family business succession, communication, and collaboration is essential to effectively manage conflicts. Dinh and Calabrò, (2019:57) argued that collaborative decision-making processes, such as joint problem-solving, can help to ensure that all family members' voices are heard and that the family's interests are taken into account. In this finding, participants revealed that succession planning is also critical in managing conflicts during the transition of leadership. In view of the findings, Hiebl and Li, (2020:783), stated that identifying and developing potential successors, establishing a clear transition plan, and preparing the successor for the role can help mitigate conflicts that may arise. Umans et al., (2020:198) acknowledged that establishing clear governance structures such as a family council or board of directors can also provide oversight and accountability, promoting effective conflict resolution.

The findings of the study reveal the factors that contribute to destructive conflict during family business succession planning and the impact of such conflicts on the family business's financial performance, family relationships, and the well-being of family members. The study found that destructive conflict during the succession planning process can harm family relationships, undermine trust, and negatively impact the business's financial performance. In this study, the findings recommend an integrative approach to family business succession planning that incorporates effective communication, collaboration, and governance structures to mitigate the impact of destructive conflicts. The study may also recommend the development of a comprehensive succession plan that considers the needs and interests of all family members and stakeholders to ensure a smooth transition of leadership.

7 CONCLUSION

In conclusion, the Impact of destructive conflict in an integrative family business succession" provides a specific conclusion. However, in general, destructive conflict can have a significant negative impact on family businesses during the succession planning process. Such conflicts can disrupt business operations, reduce productivity, harm business performance, and strain family relationships. An integrative approach to family business succession can help mitigate the impact of destructive conflict by encouraging clear communication, collaborative decision-making, succession planning, and establishing governance structures. Through effective conflict management, family businesses can ensure a smooth transition of leadership and maintain the legacy and values of the family.

8 THEORETICAL PRACTICAL IMPLICATIONS OF THE STUDY

8.1 Theoretical Implications

The study can contribute to the literature on family business succession and conflict management by providing insights into the impact of destructive conflict on the succession process. The study can have significant implications for family businesses, practitioners, policymakers, and researchers involved in family business succession and conflict management in South Africa and beyond. This can help to advance the understanding of how conflict affects family businesses and their succession planning. The study can help to validate existing theoretical models related to family business succession and conflict management. For example, the study can provide evidence for the importance of integrating conflict management strategies in family business succession planning.

8.2 Practical Implications

The study can provide insights into the impact of destructive conflict on family business succession and can help family businesses to develop more effective succession planning strategies. Enhanced the following, business performance, by identifying and addressing sources of destructive conflict in the succession process, family businesses can improve their performance and ensure their long-term sustainability. This can have a positive impact not only on the family and the business but also on the wider community and economy. The study can have policy implications for the government and other stakeholders involved in supporting family businesses. This can help to promote the

growth and success of family businesses, which are important contributors to the economy and society.

9 RECOMMENDATIONS

Based on the findings of the study on the impact of destructive conflict in an integrative family business succession in South Africa, the following recommendations can be made:

- 1) Family businesses should integrate conflict management strategies into the succession planning process. This can include identifying potential sources of conflict early, creating a family constitution that outlines conflict resolution procedures, and involving an impartial third-party mediator or consultant.
- 2) Family businesses should increase communication and transparency among family members and stakeholders to reduce misunderstandings and promote collaboration. Regular family meetings, open communication channels, and shared decision-making processes can help to foster a more inclusive and collaborative environment.
- 3) Family businesses should invest in leadership and management training for family members who will be involved in the succession planning process. This can help to develop the necessary skills and competencies needed to lead and manage the business effectively and avoid conflict.
- 4) Family businesses should seek outside support from professional advisors, such as lawyers, accountants, and business consultants, who can provide objective advice and guidance on succession planning and conflict management.
- 5) Family businesses should foster a culture of respect and trust among family members and stakeholders. This can be achieved through shared values and vision, transparency, and a commitment to open communication and collaboration.
- 6) The South African government should consider developing policies and programs that support family businesses, such as tax incentives, funding opportunities, and access to professional advisors.

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Value transmission: Socialisation agents in the context of indigenous Black South African business families

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ABSTRACT

An abundance of literature describes how next generation (NextGen) family members learn cultural precepts such as values. However, a paucity of knowledge on the key socialisation agents in the development and transmission of values among indigenous African business families exists. Utilising seven indigenous Black South African business families as case studies, our study reveals that the NextGen of family members were socialised into a value set by familial and non-familial socialisation agents. Nuclear family members and extended family members were found to be key socialisation agents in the transmission of values to the NextGen members. We also confirmed that this transmission of values takes place through vertical, oblique, and horizontal channels, but with certain agents this occurs through more than one channel. Our study contributes significantly by contextualising social learning theory to indigenous Black South African business families, providing greater insights into cultural and family business diversity from a non-Western perspective.

Keywords: Values, Transgenerational value transmission, Socialisation agents, Indigenous African culture, Family business, Next generation

1 INTRODUCTION

It is well supported in the literature that values are the guiding principle for peoples' actions and decisions and are used to evaluate both people and events (Bilsky & Hermann, 2016; Miles, 2015; Sorenson, 2013; Duh, Belak & Milfelner, 2010; Schwartz, 1992). Cultural groups, societies, and individuals are characterised by these values (Schwartz, 1992). In a society, values are used to define people's core thinking about what they love or hate (Bardi & Schwartz, 2003).

The topic of culture and value transmission in the field of transgenerational studies has received increasing interest among researchers and scholars (e.g., the seminal work of Albert, Trommsdorff & Wisnubrata, 2009; Schönplflug, 2009b). In addition, contemporary debates on cultural transmission have largely focused on the transmission of cultures in a social context (Zhou, Liu & Ho, 2015). For example, researchers and scholars are interested in the following questions: What values do parents want to transmit to their children? How do adolescents formulate their own value system? How do parents transmit values and influence their children's moral development? (Tam, Lee, Kim, Yi & Chao, 2012; Barni, Ranieri, Scabini & Rosnati, 2011). Another question of interest is: How is cultural continuity maintained across generations in the transmission process? (Woodfield & Husted, 2017; Susannah & Anna, 2014; Xiaohong, 2012).

Socialisation agents are the “social structures through which socialisation occurs” (Robson, 2021). In the context of family businesses, these agents introduce the value set of a business family to the next generation (NextGen) of family members and help to maintain the cultural continuity of both the family and the business. Socialisation agents exert an influence on the NextGen of family members from childhood through to their adolescent years (Barni *et al.*, 2011; Grønhøj & Thøgersen, 2009), and are key actors in the development of values from one generation to the next (Ohiagu & Okorie, 2014).

In the field of family business, attempts have been made by several researchers to investigate socialisation in the context of value transmission. For example, García-Álvarez, López-Sintas and Gonzalvo (2002) examined the socialisation of potential successors in family business and related the socialisation process to the values that the founder wanted to convey to the NextGen. Using a qualitative approach, Parada and Viladás (2010) shed light on how values are transmitted successfully in family businesses using narratives. More recently, Bika, Rosa and Karakas (2019) examined the multi-layered socialisation processes in transgenerational family businesses by going beyond the traditional focus on internal family socialisation and value transmission. While these studies provide an understanding of the complexities of socialisation processes, they do not identify the socialisation agents in the process. A need exists for family business researchers to explore the various socialisation agents (including non-family agents) and their influences on value transmission processes (Bika & Kalantaridis, 2019). It is anticipated that such an exploration could provide an integrated approach to value development and transmission among NextGen of family members.

Against this background and underpinned by social learning theory, our study aims to respond to two research questions, the first being: Who are the socialisation agents in the development and transmission of values among indigenous Black South African (IBSA) business families? In our study, an IBSA business family refers to a family that independently owns and manages a business, excluding South Africans from the Coloured and Indian population groups. Several studies have been done on NextGen learning in family businesses (e.g., McAdam, Clinton, Hamilton & Gartner, 2023; Barbera, Shi, Agarwal & Edwards, 2020; Bika, Rosa & Karakas, 2019; Miller, 2014), alluding to the critical role that senior generation family members play in facilitating the learning processes among the NextGen. However, most of these studies do not provide an integrated approach, from a family perspective, to identifying socialisation agents in value transmission to the NextGen. Our study argues that there is a need to conduct an empirical investigation on the different socialisation agents in transmitting values to NextGen to ensure the effective functioning of the family and the business (Miller, 2014). Therefore, we consider the transmission of values to the NextGen of family members crucial for preserving family and business traditions, and establishing sustainable cultures among the family and business (Bika *et al.*, 2019; Arcand, 2012; Parada & Viladás, 2010). The second research question we address is: What value transmission channels are evident among the indigenous Black South African business families? Identifying these channels is needed to enable researchers and scholars to understand and explain the directions or paths through which values are transmitted from the senior generation to the NextGen. We argue that in the socialisation process, the transmission of values by agents follows different transmission channels or directions to effectively help these agents develop values among the NextGen of family members. Gaining insights on the value transmission channels helps business families and senior generation members understand the different directions that the transmission of values follows, and how these channels vary depending on who the socialisation agents are. While the importance of values to family and business continuity is noted (Ruf, Graffius, Wolf, Moog & Felden, 2021; Zwack, Kraiczy, Schlippe & Hack, 2016; Joseph, 2014), business families and founders often fail to use these channels effectively and thus fail to transmit their values to the NextGen successfully (Alderson, 2011; Sharma, 2004). This failure contributes to the lack of transgenerational success among family businesses (Melin, Nordqvist & Sharma, 2014).

By responding to these research questions, our study makes two contributions. First, by contextualising social learning theory to an IBSA setting, we provide greater insights into the diversities associated with cultures and family business models from a non-Western perspective. Examining IBSA business families and their businesses may help explain the cultural differences inherent in this population with respect to socialisation agents in the transmission of values from one generation to the next. Cultural differences that non-Western researchers should take cognisance of. As highlighted by Bika *et al.* (2019), a research need exists to explore socialisation processes in other cultural contexts using a multiple case approach. Second, our study contributes to greater insights into the role of family in its extendedness as an agent of socialisation in the transmission of values. Our study highlights the collective responsibility that extended family members have in the upbringing and socialising of NextGen family members.

We have organised the remainder of the article as follows: We begin by describing social learning theory, the nature of major socialisation agents, and value transmission channels in the socialisation process. With this theoretical foundation, we highlight the methodological choices that enabled us to address the research questions of our study. Empirical findings obtained from seven IBSA family business cases are then presented and discussed. Finally, we provide conclusions by highlighting both theoretical contributions and practical implications, and also provide limitations and directions for future studies.

2 THEORETICAL FOUNDATIONS

2.1 SOCIAL LEARNING THEORY

Most researchers agree that behaviours indicative of culture require some sort of social transmission (Causadias, Telzer & Gonzales, 2018; Tam & Chan, 2015; Tam *et al.*, 2012). Social learning theory describes the transmission of culture and values through social learning (Alem, Perry, Zhu, Loukola, Ingraham, Søvik & Chittka, 2016). Flinn (1997) suggests that social learning is a mechanism whereby cultural traits such as beliefs, attitudes and values are transmitted and replicated. Mouden, André, Morin and Nettle (2014) add that while people inherit biological genes, they also inherit a socially learned knowledge and it is this knowledge that shapes their personality and identity (Burdick, 2014).

Learning is a culturally and socially constructed process (Kendal, 2012). Social learning theory proposes that individuals learn much of their behaviour by observing (Maskaly & Donner, 2015), emulating and imitating others (Schönpflug, 2009a; Tomasello, 2001). Accordingly, individuals observe the behaviour of others, especially that of elders or role models, such as their teachers and peers (Burdick, 2014; Hanna, Crittenden & Crittenden, 2013; Bisin & Verdier, 2001), or those whom they admire and respect (Maskaly & Donner, 2015). Imitative learning relies on the concept of an intentional agent and involves simple perspective-taking (Schönpflug, 2009a). As people observe, emulate, and imitate others, the social learning process produces intangible outcomes such as improved mutual trust and relations, and a shared commitment among members (Sol, Beers & Wals, 2013; Schönpflug, 2009a).

Schönpflug and Bilz (2009) suggest that the transmission of culture and values requires some form of social learning. These authors contend that culture and value transmission cannot be claimed if all members of a society learn a particular behaviour only because they have all been exposed to

the same set of contingencies from the physical environment. In such a case, there is no culture or value transmission because there is no social learning taking place.

While adults often intentionally teach the younger generation about issues, they consider important to themselves and their communities, less clear forms of transmission also occur through the transgenerational transfer of knowledge (Schönpflug & Bilz, 2009). In addition, researchers contend that social learning is not sufficient in itself to establish a culture (Causadias *et al.*, 2018).

2.2 SOCIALISATION AGENTS IN VALUE TRANSMISSION

Several scholars (Lumen, 2021; Robson, 2021; Chaudhary & Gupta, 2014) agree that the major agents of socialisation are the family, school and peers, religion, and the media. These agents are described in the following sections.

2.2.1 Family

The family has long been identified as the most influential socialisation agent in the development and transmission of values and behaviours to NextGen family members (Laghi, Bianchi, Pompili, Lonigro & Baiocco, 2021; Campos, Resende, Martins, Ferreira, Alves & Albuquerque, 2018; Grønhøj & Thøgersen, 2009). As a cultural institution, the family adapts to cultural contexts and is a vehicle for value transmission (Sherry & Ornstein, 2014; Berry & Georgas, 2009). Parents, grandparents and siblings are all institutional carriers who teach children what they need to know to function effectively in society (Lumen, 2021).

Parents are the main and primary socialisation agents in a family (Yee, Lwin & Ho, 2017; Prioste, Narciso, Gonçalves & Pereira, 2016; Perez-Brena, Updegraff & Umaña-Taylor, 2015). Over the years, the literature has highlighted the importance of parents in socialising their children into the family's values and beliefs as well as acceptable standards of behaviour in a society (Hadjicharalambous & Dimitriou, 2020; Copen & Silverstein, 2007).

Like parents, *grandparents* maintain an important role in providing instrumental support and help to their grandchildren (Lähteenmäki, Hakyemez-Paul & Pihlaja, 2019). According to Pratikaki, Germanakis and Kokkinaki (2011), in addition to showing care, love, and tenderness towards their grandchildren, grandparents also provide stability for the entire family. It is assumed that in this way grandparents play a role in the development and transmission of a value set that they consider important (Maijala, Uusiautti & Määttä, 2013).

Unlike friendships, *sibling* relationships are non-elective (Feinberg, Solmeyer & McHale, 2012). Siblings play a critical role in children's behavioural development, and healthy sibling relationships can provide lifelong companionship, friendship, support and guidance, all associated with healthier outcomes later in life (Waid, Tanana, Vanderloo, Volt & Kothari, 2020; Dunn, 2005). The sibling role structure is based on birth order and age differences between siblings (Feinberg *et al.*, 2012). It is this structure that creates a hierarchical dynamic in that older siblings are more likely to serve as sources of guidance, role models and caregivers to their younger siblings than vice versa (Slomkowski, Rende, Conger, Simons & Conger, 2001). Consequently, older siblings act as a source

of values and facilitate the socialisation of values among younger siblings (Kothari, Sorenson, Bank & Synder, 2014).

2.2.2 School and peers

School is a prominent socialising agent in which children are introduced to and integrated into societies' communities of practice (Benish-Weisman, Oreg & Berson, 2021; Mickan, 2007). While at school, children have opportunities to gain an understanding of the values, discourse and materials of a culture (Mickan, 2007; Vietze, Juang & Schachner, 2019). As highlighted by Burdelski (2020), school discourse is a pre-eminent vehicle for fostering children's acquisition of academic and social knowledge. At school, children begin to interact with many features of their environment, which all contribute to their social development (Robson, 2021).

Teachers who are the socialisation agents of the school mainly drive the role of socialising children to obey authority (Tamm, Tulviste & Martinson, 2020). School activities and teachers significantly contribute to the cultural and identity formation of children (Tamm *et al.*, 2020; Mickan, 2007). Through schools as socialisation agents, children meet other significant people from whom they will learn the skills of social interaction (Robson, 2021; Studsrød & Bru, 2011). One such group is that of their peers.

A *peer group* is "made of people who are similar in age and social status and share similar interests" (Lumen, 2021). Benish-Weisman *et al.* (2021) and Witt (2000) contend that as children move into adulthood, they are influenced by their peers. Children spend a significant amount of time networking with peers during their adolescence (Vietze *et al.*, 2019), which affects their social and emotional development (Masten, Juvonen & Spatzier, 2009). Forming positive emotional connections with peers and creating supportive peer relationships promotes the effective internalisation of values in children (Studsrød & Bru, 2011).

2.2.3 Religion

Religious institutions (e.g., synagogues, churches, temples and mosques) offer the space and interactive context to absorb values and behaviours (Golo, Broo, Sztajer, Benyah, Ray & Sarkar, 2019; Vermeer, Janssen & De Hart, 2011). Religion is central to the lives of many people (Larsen, 2020; Sav, 2019) and accordingly helps families transfer values to their children (Vermeer *et al.*, 2011). Sav (2019) asserts that religious institutions carry value sets that shape how people view their lives, family roles, and work. By paying attention to religious processes and communities, children are taught to feel, believe, think, and act as religious believers in a community (Klingenberg & Sjö, 2019). Several studies (e.g., Klingenberg & Sjö, 2019; Broo, Kheir & Sarkar, 2019; Vrublevskaya, Moberg & Sztajer, 2019; Vermeer *et al.*, 2011) have been undertaken with the major theme being the religious socialisation of NextGen family members. The study by Golo *et al.* (2019) confirmed that religion is an important secondary socialisation agent for NextGen family members.

2.2.4 The media

The media has become embedded in the everyday lives of people, affecting their perceptions, understandings, construction of meanings, and general view of reality of the world (Ohiagu & Okorie, 2014). Traditional media such as television shows, movies, popular music, magazines, and other

aspects of mass media exert an influence on the political and cultural views that people have (Lumen, 2021). In contemporary society, most media communication finds expression on various *social media* platforms such as Facebook, YouTube, Twitter and Flickr, blogs, Myspace, and Instagram (Ohiagu & Okorie, 2014; Roblek, Bach, Meško & Bertoncelj, 2013; Kilian, Hennigs & Langner, 2012). Social media, a key conduit through which communication flows, often plays a critical role in transmitting culture and values (Ohiagu & Okorie, 2014). Colbert and Courchesne (2012) and Navascués (2014) concur that social media and associated technology facilitates the transmission of culture, influencing what is preserved and for how long. Through watching, listening, and reading about what others do, individuals use the media to learn and assimilate the values and behaviours of a group (Ohiagu & Okorie, 2014). Wiest (2016) studied the role of mass media in the transmission of cultural messages and found that social media are significant transmitters of cultural messages (such as values and heritage) and play an influential role in shaping culture.

2.3 VALUE TRANSMISSION CHANNELS

The channel of value transmission, also known as the socialisation channel or form of socialisation, refers to the mediums or directions through which a person can learn culture, including values, from other people (Berry, Poortinga, Segall & Dasen, 2002), and varies from one situation to another (Crisogen, 2015; Grønhøj & Thøgersen, 2009; Trommsdorff, 2009). Value transmission channels describe the direction through which culture and its elements are transmitted from one person to another.

The literature identifies three directions of transmission through which content, such as values and beliefs, can be transmitted, namely vertical, horizontal, and oblique channels (Schönpflug, 2009b; Schönpflug & Bilz, 2009; Berry *et al.*, 2002). *Vertical transmission*, also known as direct socialisation, describes the transfer of cultural elements from parents to their offspring (Mudd, de Vos & de Boer, 2020; Findlay, Lumsden & Hansell, 1989; Cavalli-Sforza & Feldman, 1981). Ganguli and Krishnan (2005) state that vertical transmission occurs inside the family when children are first exposed to their family culture and value systems.

Cavalli-Sforza and Feldman (1981) state that *horizontal transmission* occurs when people learn from their peers in their day-to-day interactions. Berry *et al.* (2002) state that horizontal transmission does not involve any biological transmission but instead through individuals of the same generations interacting (Mudd *et al.*, 2020; Gong, 2010).

Garland, Goldizen, Rekdahl, Constantine, Garrigue, Hauser, Poole, Robbins and Noad (2011) state that cultural values can be transmitted *obliquely* from one generation to another. In oblique transmission, children learn from other adults (Berry *et al.*, 2002) who are of a parental generation but not their parents (Mudd *et al.*, 2020) and through other socialisation institutions and agents (Prioste *et al.*, 2016; Cavalli-Sforza & Feldman, 1981).

3 METHODOLOGY

3.1 EMPIRICAL SETTING

To answer our research questions, we adopted a qualitative multiple case study design, which allowed us to investigate a real-life setting where neither the phenomenon nor the participants under investigation could be manipulated (Salkind, 2010). Our sample consisted of seven family businesses who were independently owned and managed by IBSA business families, excluding members of the Coloured and Indian population. The Coloured and Indian population groups were excluded from the study due to their value and cultural systems being vastly different to that of the Black African population (du Plessis, Saccaggi & de Bruin, 2015). The business families met the following selection criteria: (i) they saw their business as a family business, (ii) they were involved in the main operations of the family business with at least 50 per cent voting rights or share, (iii) they had at least one active operating business, not only being a passive shareholder or investor, and (iv) they had a transgenerational intention, that is, an ambition to pass on the business to the NextGen of family members. The key participants had to be one of the following: a member of the most senior generation of the family business (e.g., founders or family elders), the current controlling family business owner or the Chief Executive Officer (CEO), a family member working in the family business representing a different generational perspective, a non-active family member, or a non-family member who had been involved in the business for at least five years.

3.2 DATA COLLECTION PROCEDURES

The data for our study was collected by undertaking 17 semi-structured interviews with members of the business families and senior staff from their businesses (see Table 1). Most interviews were conducted face-to-face, on the property of each business family. The duration of the interviews ranged from 33 to 137 minutes. We used the concept of “information power” to determine the sample size of the study; in other words, the larger the information power the sample holds, the lower the sample size needs to be, and vice versa (Malterud, Siersma & Guassora, 2015). Given the aim of the study, the specificity of the sample, the use of established theory, the quality of the interview dialogue and the analysis strategy adopted in this study, a relatively small sample size was considered as having high information power. To triangulate the findings from the interviews, we collected secondary data about the business families and their businesses, which was sourced from business websites, social media platforms, and family and business historical documents. The use of different multiple data sources helped us to enhance the credibility of the study by providing robust and comprehensive and well-developed data. Before conducting interviews with the participants, we applied for and were issued ethics approval from the Research Ethics Committee-Human (REC-H) at the institution of the researchers.

The semi-structured interview protocol was designed to evaluate the role played by socialisation agents in the development and transmission of values among IBSA business families. Several questions were posed to members of the business families and senior staff from their businesses regarding the concept of socialisation agents in value transmission among the NextGen members. The semi-structured interview protocol included the following broad questions:

- What set of values exists in your family? Where do these values come from? What has influenced or what influences the formation (development) of your family values?
- What is the role of an African family system in value transmission? Who are the key agents in the formation of values among the NextGen members?
- What is the influence of culture on the formation and transmission of values to NextGen members? How much influence does education and social media have on value transmission?

3.3 DATA CODING AND ANALYSIS

To analyse our data, all interviews were transcribed verbatim and the software program, ATLAS.ti version 9 was used to manage the coding and theme development process. In this study, we used the six steps of reflexive thematic analysis as suggested by Braun and Clarke (2020). The first step was to become familiar with the data by re-listening to the interviews, organising and re-reading the text collected from the participants (Braun, Clarke, Hayfield & Terry, 2019). In the second step, we defined the coding units that were to be analysed, enabling us to organise the data into manageable chunks (du Plooy-Cilliers, Davis & Bezuidenhout, 2014). Guided by the literature, codes were deductively established utilising different types of coding at each phase of the coding process. The third step involved generating and developing themes by identifying patterns and relevant meaning within the list of codes (Terry, Hayfield, Clarke & Braun, 2017). In the fourth step, we consolidated and further analysed all the initial themes generated from each family business case by developing and reviewing the data set. The development and reviewing of themes are important in the thematic analysis process as this allowed the researchers to shape and further clarify some of the themes. This was followed by fifth step, which involved the reviewing of themes through refining and defining the generated themes. In this phase, we attempted to move from “thinking about themes as a list of codes and collated data” to an interpretative orientation (see Table 2). In the final step, we focused and refined the range of writings, including familiarisation of notes, field notes and memos, into a single output that answered the research question. (Terry *et al.*, 2017).

TABLE 1. PARTICIPANTS AND CASE DETAILS

Case (founded)	Industry	Participant	Relation	Generation	Position in the FB	Tenure (years)	Highest qualification	Interview date	Interview duration (minutes)
A (1973)	Petroleum gas	1	Founder	First	Retired	45	No formal education	18 Nov 2019	33
		2	Granddaughter	Third	Operations Manager	5	No formal education	18 Nov 2019 24 May 2021	77 48
B (1974)	Funeral service	3	Son	Second	CEO	24	Not clear	15 Jan 2020 22 Jan 2020	60 108
		4	NFE	NFM	Office Manager	22	Diploma	25 Feb 2020	100
		5	Grandson	Third	Employee	5	Degree	10 Sep 2020	96
C (1980)	Funeral service	6	Daughter	Second	Employee	25	Degree	22 Dec 2019	133
		7	Daughter	Second	Non-active member	11	Degree	22 Dec 2019	130
		8	NFE	NFM	Operations Manager	40	Degree	31 Dec 2019	102
D (1981)	Laundromat	9	Daughter	Second	CEO	6	Degree	29 Oct 2019	86
		10	NFE	NFM	Operations Manager	10	Certificate	29 Oct 2019	65
E (1981)	Clothing	11	Daughter	Second	CEO	9	Degree	08 Jul 2020 18 Jul 2020	128 137
F (2002)	Marketing	12	Founder	First	CEO	21	Degree	28 Feb 2020	135
		13	Daughter	Second	Manager	8	Certificate	28 Feb 2020	120
		14	NFE	NFM	Employee	5	Diploma	28 Feb 2020	60
G (2005)	Logistics	15	Founder	First	CEO	16	Degree	14 Sep 2020	120
		16	Son	Second	Branch Manager	5	Degree	20 Sep 2020	120
		17	NFE	NFM	Financial Manager	11	Degree	21 Sep 2020	90

NFE = Non-family employee; NFM = Non-family member; CEO = Family CEOs; FB = Family business

Source: Researchers' own construction

TABLE 2. DATA STRUCTURE

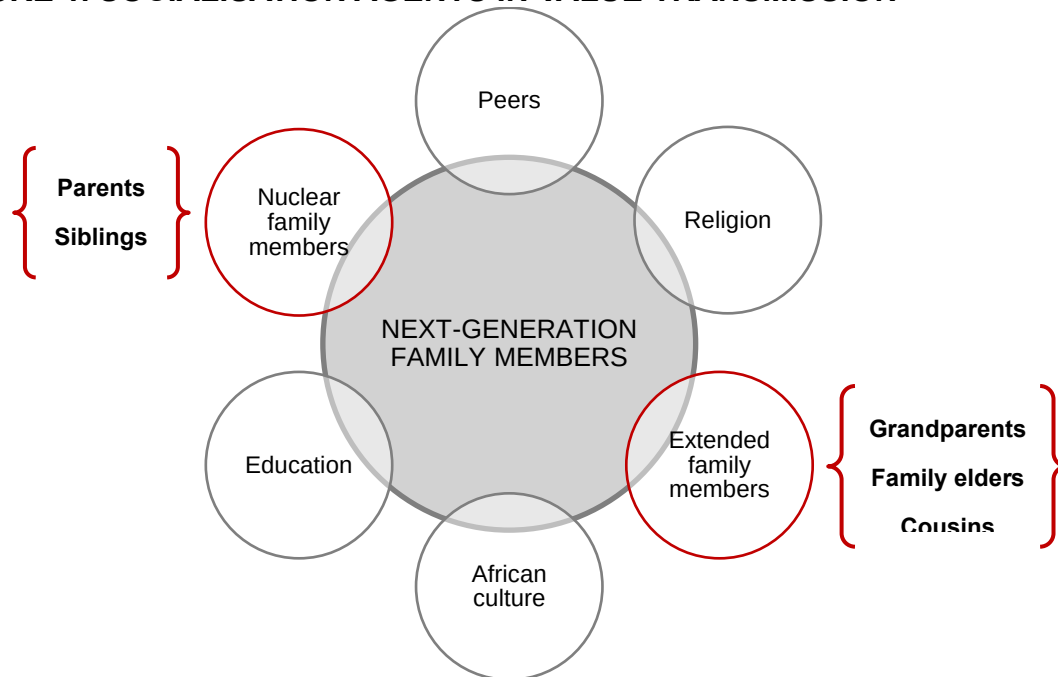
First-order level codes	Second-order level codes	Final themes
• Parents (mothers and fathers) • Adopting a firm parenting style • Parents communicating their expectations to the children • Parents acting as disciplinarians to their children	Nuclear family members	Familial socialisation agents
• Siblings earn respect through their endeavours and achievements • Older siblings act as role models to younger siblings • The position of the siblings in the sibling hierarchy demands respect from younger siblings • Siblings admire each other and imitate each other's behaviours		
• Grandparents playing a role in the upbringing of the children • Family elders adopting family children as their own • The NextGen copying the behaviours of the family elders • Observing the values taught by grandparents and family elders • Living together and growing up with cousins in the same household	Extended family members	Non-familial socialisation agents
• Building and instilling Christian values • Respecting Christianity • Sunday school and church attendance • Growing up in the church • The importance of prayers in the family	Religion	
• Respecting elders and knowing the other person • Observing and preserving African traditions • Undertaking African ceremonies or rituals • African spirituality	African culture	
• Sending children to schools and universities • Acquiring skills and knowledge • Exposure to independence and education	Education	
• Attending school • Interacting and mixing with other children at school • Observing and imitating school peers	Peers	

Source: Researcher's own construction

4 EMPIRICAL FINDINGS AND DISCUSSION

Two groups of socialisation agents were found to play an important role in the transmission of values among the participating business families, these being familial and non-familial socialisation agents (see Figure 1).

FIGURE 1. SOCIALISATION AGENTS IN VALUE TRANSMISSION



Bold = Key socialisation agents

Source: Researchers' own construction

4.1 FAMILIAL SOCIALISATION AGENTS

Our findings reveal that familial socialisation agents play a critical role in the development and transmission of values in the context of IBSA business families. Familial socialisation agents have been grouped into two sub-themes, nuclear family members and extended family members, each of which are described with evidence in the following sections.

4.1.1 Nuclear family members

In our study, the nuclear family members identified as playing an important role were biological parents and siblings. In line with the literature (Barni, Ranieri, Ferrari, Danioni & Rosnati, 2019; Laspita, Breugst, Heblich & Patzelt, 2012; Barni *et al.*, 2011), we found that both mothers and fathers were identified as the most influential (primary) familial socialisation agents in the development and transmission of values from one generation to the next. Our study's findings are well supported by Bika *et al.* (2019) who suggest that, within the context of business families, biological parents are

the primary socialisation agents in the transmission of values, especially the core societal values. Biological parents play an important role in how children make sense of the social world and shape their social reality (Soleimanof, Morris & Jang, 2021). Participant 9 explains: *"Definitely my mom [...] probably my dad, yeah, but I think the family values were formed by both of them, but my mom obviously entrenched them because she was the surviving parent."* Even though Participant 9's father passed away in 1991, non-family employee Participant 10 remembers the influence that the father had on Participant 9's life and on the business.

The participating NextGen members described their biological parents as having a firm parenting style and it is through this style of parenting that they saw and learnt what is considered acceptable behaviours and values to the biological parents. Furthermore, our findings show that biological parents socialise their children into a set of values that they themselves were socialised into. Participant 7 explains: *"The values that they have taught us they learnt from their parents."* Similarly, Participant 12 notes that *"For some strange reason I had this discipline, I think inbuilt discipline. So, my expectation to my children, I say, 'Why can't you be like me?'"* This finding concurs with the studies of Barni *et al.* (2019) and Barni, Vieno, Rosnati, Roccato and Scabini (2014) who found that most biological parents often desire children to develop values that are similar to their own.

Biological parents also socialised their children into a set of values by involving them in the family business. By being involved and observing their biological parents, the NextGen learnt values such as hard work, humility, respect and discipline. Participant 2 comments, *"My mother would want us to be involved. She would want us to assist whoever that is working, whoever that is making the fat cakes at the back [of the offices]."* Participant 3 explains, *"Humbleness comes from my father. My father was a very humble man. And then from my mother's side, that hard working – my mother was a hard worker."*

Waid *et al.* (2020) highlight that siblings play a crucial role in the behavioural development of children. Our findings show that siblings are important socialisation agents in the transmission of values. Siblings with older brothers being particularly influential, are socialisation agents because of the respect they demand and earn through their endeavours and achievements. Older siblings become socialisation agents especially when the age difference between them and their younger siblings is considerable. They are also more effective socialisation agents when they earn the respect of their younger siblings because they are admired and regarded as role models. As in our study, Slomkowski *et al.* (2001) note that the sibling role structure creates a hierarchical dynamic where older siblings are more likely to serve as sources of guidance, role models and caregivers to their younger siblings. Participant 7 says, *"So, I was scared of my dad, and I was also scared of my brother because I knew that he would be dragging me down the street and you know the same punishment that my father would give out for me, he would also give out."* The age difference between Participant 7 and her elder brother meant that she was to demonstrate the same respect towards him that she would show her father. *"So, he is a male and being the age gap [between him and me]. He was always my brother, there was never that thing that I can [do whatever I want]."* This suggests that older siblings become socialisation agents, especially when there is a considerable age difference between them and younger siblings. Their position in the sibling hierarchy also grants them the right to demand the respect of younger siblings. For example, Participant 16 explains how he constantly admonished his younger sisters when they did not behave in line with their family values: *"And luckily, my sisters, I have warned about them so many times, they do not do it."* When siblings admire each other, they tend to imitate and follow each other's behaviours and courses of action in their own lives. Particularly when older siblings excel, younger siblings strive to emulate them. Our findings concur with Kothari *et al.* (2014) who assert that older siblings act as a source of values and facilitate the socialisation of values among the younger siblings.

4.1.2 Extended family members

In general, the literature suggests that the structure of an African family differs from their Western and European counterparts in terms of its extendedness (Obot, 2001). Unlike nuclear families, extended family structures include numerous family members that exist in a loose or tight network of relationships where grandparents, uncles and aunts are part of the family structure (Obot, 2001). In African families, all the family members, including extended family, contribute to bringing up and caring for the children (Copen & Silverstein, 2007; Obot, 2001). In our study, extended family members were also found to play an important role in the transmission of values to the NextGen. Extended family members identified as key socialisation agents include grandparents, family elders, and cousins. This finding is supported by the literature which points out that Black African culture is collectivistic in nature, and extended family members such as grandparents, uncles, aunts, cousins and nephews are central to the transmission of beliefs, values and practices (Cowell & Saunders, 2010; Copen & Silverstein, 2007; Obot, 2001).

As evident from our findings, grandparents have specifically played a role in value transmission by setting examples and living their values for the NextGen to see. Several of the participants in our study had the privilege of knowing their grandparents and recognised the role that these elders played in developing the values they uphold. Participant 16 states, *"The most essential values for me are, let me give you a couple [of examples], and I am going to actually just picture my grandparents when I say this. It would have to be honest to yourself, to your loved ones and God. Always try to be your best, you would be a better person, be loving, be caring, be fair and own up to your mistakes."* Similarly, Participant 2 observes that *"my grandfather has always taught us that you must also be able to get in and get dirty [work alongside] with the people. It's not easy to tell somebody to do something if you can't do it yourself."*

In the case of the Participant 2's family, the NextGen family members (children) were raised by their grandparents, who were their primary source of care and love while growing up. In these circumstances. This experience gave the grandchildren an opportunity to observe the behaviour of their grandparents and to be influenced by their actions. Similarly, Participant 3's children were brought up by his mother. He says, *"Most of them were very close to my mother; they grew up with her, they knew what she believed in, and they still hold those values besides me being there."*

In addition to grandparents, it was observed that elders such as uncles and aunts have also played key roles in value transmission in the participating families. When Participant 2's mother passed away in 2011, her uncle and aunt became her "adopted parents" and the people she turned to for advice. She describes the situation as being all about *"copy and paste [...] we are doing what our uncles and aunts were doing."* In the case of Participant 3's family, some of the NextGen family members were also brought up by their aunts and uncles. Participant 3 states, *"My mother has a twin, so her twin used to own farms there in Town 4. Some of my brothers went to stay with her. This lady [aunt] had a farm, a butchery and used to slaughter cows and sell. For most of my brothers grew up there."* In another case, Participant 7 explains that *"when he [her father] moved to City 3, his brothers' kids came to stay with him for a while as well. He helped raise them."*

This finding is supported by Oppong (2013) who affirms that children in indigenous Black African families belong not only to their biological parents but are also under the authority and control of any other adults in the family. As with Oppong's (2013) study, the findings in our study show that among the participating families, the raising of children is shared by elders, and biological and non-biological parents. In this way, children are socialised into a value set by all adults in their families. It is this extended family system that is evident and dominant among indigenous Black families and acts as an important pillar supporting their culture and family unity (Ojua, Lukpata & Atama, 2014).

The findings of this study also highlight that cousins, as extended family members who live in the same household, can become friends who play a role in the socialisation of values. Participant 6 states, *"We lived in a [small house], we shared a room with our sisters and our cousins, we grew up together."* She continues: *"I didn't have any friends too. I was lucky enough that my cousins were in the same age group as me. So, my mom's sisters had children who also lived with us, and we were in the same age group and so I had friends in that my cousins were my friends. But outside the yard, I didn't really socialise with anyone outside my yard."*

Obot (2001) observes that as children grow, they are exposed to the direct influences of at least three generations in an African family. In addition to biological parents and grandparents, albeit to a lesser degree, our study also highlights the role of cousins in the transmission of values to NextGen family members. As emphasised in the literature, cousins play a role in the behavioural development of NextGen of family members (Waid *et al.*, 2020). Most of the NextGen family members participating in this study grew up with their cousins. They were encouraged to form familial relationships and bonds with their cousins and were each other's best friends. As a result, the transmission of values among the NextGen members themselves (cousins) has been influenced and shaped by them living together and growing up together in the same household.

4.2 NON-FAMILIAL SOCIALISATION AGENTS

Our study identifies several non-familial socialisation agents as playing a key role in the transmission of values, namely religion, African culture, education, and peers.

4.2.1 Religion

Most of the participants spoke of the role of religion, the church and Christianity in the formation and development of their values. Our findings suggest that the older generations were closely associated with the church and strove to live by Christian values. According to Participant 6, *"My father's family – my father used to say that his father was a spiritual man. So, himself, he went to church [and] he didn't mix the two [Christianity and African traditional ceremonies]."* The obituary notice of Participant 6's father read: *"Uncle and his friends started a social club called Club Seven. These were friends who had a vision of supporting each other in building and instilling Christian values in their families. They were all disciplinarians who never touched alcohol and had passion for education, professionalism and progress in life."* It is common for religion to facilitate the development and transmission of values from one generation to the next (Vermeer *et al.*, 2011); many Black African families believe in the presence of God and that everything that happens is explained by Him (Igboin, 2011). Several authors point out that Christianity has emerged as the main religion to shape the moral development of the southern African region since the days of colonisation (Mokhoathi, 2017; Omobola, 2014).

As children, religion was a socialisation agent in the transmission of values that featured strongly in the lives of the NextGen members. The role of religion (the church) as a socialising agent is still evident in that many of the participants actively practice Christianity, albeit for different reasons. As Participant 13 explains, *"Prayer is one of those things that I think does really keep us together."* According to Moberg (2005), religion contributes to the establishment of criteria by which actions and behaviours are explicitly or implicitly appraised. In our study, most of the participants are

religious and made reference to Christian precepts during the interview process. Most grew up in religious families that followed and continue to follow Christian practices such as going to church and living by Christian values. It is these values that have shaped their moral and ethical compasses. As affirmed by Golo *et al.* (2019), religious institutions such as synagogues and churches offer spaces where the socialisation of values takes place.

4.2.2 African culture

Our findings show that African culture greatly influenced the values that the senior generation of family members (biological parents, grandparents, and family elders) transmit to the NextGen. Participant 6 states, *"The values that are in our culture together will take us far [...] They're [the values] coming from being Black first of all, being African because you're taught respect, you are taught to know the other person."* Similarly, Participant 7 explains, *"And being African as well – knowing that you need to respect your elders, whether or not they are blood. If someone is older than you then you need to respect that. There is a level of respect that you need to have for anyone."*

In our study, several participants were found to still observe several African cultural traditions, including having rituals to consult with ancestors. We found that the participating families hold a strong belief in the existence of a supreme being and their ancestors are respected as intermediaries between the living family members and the dead (Igboin, 2011). Participant 6 says, *"But now you know African culture – your in-laws, if you are married to that kind of person, you have to do it. So, my husband does it, even on Thursday he had an igogogo [African ceremony] so I had to be there."* Participant 7 explains: *"[igogogo is done] and whenever you want to speak to the ancestors. If you are asking for something or you are thanking them or something, then you have that ceremony. You sacrifice and then you have the African beer."* Furthermore, Participant 2 notes that *"some things that we do in the African culture are against Christianity but in terms of personal space, I still do. Recently I had a thanksgiving myself to say thank you for being able to purchase the vehicle that I have bought."*

4.2.3 Education

Education was identified as another socialising agent in the transmission of values among the participating families. As is evident from our findings, most of the business family members have received and continue to receive education from some of the best schools and universities in the country. Participant 9 notes that education *"played a huge role in the formation of values [...] in fact, education can never be a bad thing."* Similarly, Participant 13 says, *"Yeah, we were very spoilt, like I said, we spent most of our time at boarding school and like our own little separate lives, but we were all given the same opportunities to express ourselves and to be ourselves."* The findings suggest that when attending boarding schools and universities, the NextGen members were exposed to the value of independence and education. The findings suggest that it is through attending these schools and universities that the NextGen of family members have absorbed values, which have guided them and continue to influence their behaviour as individuals.

Our findings are supported by Vietze *et al.* (2019), who contend that school-going children are surrounded by different curriculum practices that provide them with opportunities to gain an understanding of their own values and culture. It appears that the participating families in our study agree with Katola (2014), who recognises that education is a basic prerequisite for social and economic development and is an important socialisation agent in the transmission of values in contemporary African society.

4.2.4 Peers

Many of the participating NextGen family members have been socialised into adopting a set of values by observing and imitating their peers. Participant 6 explains, “*We didn’t grow up having birthday parties. But now because our kids are mixing with the other kids [at school] who do birthdays, we try to incorporate them in our lives.*” Participant 7 also says, “*Yes, as a child you want to do as the other kids do. You want to follow your peers but then because you know that my father is this certain person, I cannot do certain things and that as my sister said, we were sheltered. We were sheltered but for me I think it helped.*” The aforementioned suggests that it is through peers that the NextGen family members are introduced to different value sets that may not be particularly welcomed by their own families.

The findings of our study are supported by Bika *et al.* (2019), who found that children’s interaction with their peers nurtures the socialisation of values among NextGen members. As pointed out by Vietze *et al.* (2019), our participants acknowledge the important role that their peers played as agents of socialisation when they were children, specifically those they interacted with at school. Children spend a significant amount of time networking with their peers during their adolescence, which contributes to their learning and their social and emotional development (Vietze *et al.*, 2019; Fortuin, van Geel & Vedder, 2016; Masten *et al.*, 2009).

Even though peers are a source of influence in the formation of values, our findings suggest that they do not play a major role because the children in our business family cases were often isolated from their peers. As Participant 6 notes, “*I do not know if it’s good or bad because I feel like, I feel that we were kind of sheltered [...] and it was fine, I did not see anything wrong with it and I didn’t envy other children. I liked where I was at the time.*”

4.3 VALUE TRANSMISSION CHANNELS IN THE SOCIALISATION PROCESS

Given the socialisation agents identified, our study confirms that value transmission takes place through three directions (socialisation channels), namely vertical, oblique, and horizontal, in the participating families. We found that biological parents transfer value sets to their children directly through vertical transmission. Therefore, biological parents deliberately communicate and undertake actions and practices that teach and socialise their children into a set of values that is important to them as biological parents. As in our study, children observe and imitate the behaviours demonstrated by their biological parents, and through this that they directly learn a value set from their biological parents (Mudd *et al.*, 2020; Schönplflug, 2009b). Furthermore, we found that the vertical transmission of values also occurs from non-biological parents to the NextGen family members. As highlighted in our study, in some cases the NextGen members were raised by other senior family members (e.g., grandparents, aunts and uncles) who played a parental role in their lives. In doing so, these family elders directly transmitted (vertical transmission) values to the Next Gen. Our study also reveals that the vertical transmission of values occurs between older and younger siblings, especially when the age difference between them is considerable. Older siblings take on a parental role because of the responsibilities they carry in their families and in raising of their younger siblings.

Our findings show that the transmission of values occurs in an oblique direction between non-parent role models and the NextGen family members. Extended family members (e.g., grandparents and

family elders) and non-familial socialisation agents (e.g., religion, African culture, and education) facilitate and instil values to the NextGen of family members through oblique transmission (Garland *et al.*, 2011). According to Mudd *et al.* (2020) and Berry *et al.* (2002), children learn from non-biological adults of the parental generation. Our findings concur in that through spending time with and observing their aunts and uncles the NextGen family members are (were) exposed to and learn the value set of non-parental role models. Furthermore, our finding confirms that within indigenous Black families, the raising of children is shared by both biological and non-biological parents (Copen & Silverstein, 2007; Obot, 2001).

Although to a lesser degree, our findings show that the horizontal transmission of values also occurs in the participating families because children are (were) raised primarily in the presence of other children of similar age. Siblings and cousins live close to each other or even grow up in the same household. Through spending intimate time together, the learning and transmission of values among the NextGen family members is facilitated. As is the case in our study, Mudd *et al.* (2020) and Gong (2010) point out that the horizontal transmission of values occurs when values are learnt through individuals interacting with peers of the same generation. The different channels of value transmission used by the various agents identified are summarised in Table 3.

TABLE 3. SOCIALISATION AGENTS AND VALUE TRANSMISSION CHANNELS USED

Agents	Channels		
	Vertical transmission	Oblique transmission	Horizontal transmission
Parents	X		
Siblings	X		X
Grandparents	X	X	
Family elders (aunts and uncles)	X	X	
Cousins			X
Religion		X	
African culture		X	
Education		X	
Peers			X

X = indicates the mostly used channel by the relevant agent

Source: Researchers' own construction

5 CONCLUSIONS

5.1 THEORETICAL CONTRIBUTIONS

The main contribution of our article has been to identify and categorise the key socialisation agents in the value transmission process within the context of IBSA business families by applying social

learning theory. By contextualising social learning theory to an IBSA setting, we provide greater insights into the diversities associated with cultures and family business models from a non-Western perspective. Insights that contribute to indigenous knowledge and diversities that highlight non-Western perspectives. Our study has also broadened the unit of analysis. Instead of just focusing on the internal familial socialisation agents (e.g., García-Álvarez *et al.*, 2002), our study has explored other non-familial socialisation agents such as the religion, African culture, education, and peers in the transmission of values. We advance the notion that socialisation agents are crucial in preserving the entrepreneurial legacies of the family and the business, which Jaskiewicz, Combs and Rau (2015) describe as the family's imprinted historical stories of past successful entrepreneurship and resilience. It is these agents that possess and share such stories by involving their children in the business, push them to receive strategical skills and knowledge, and work experience that are beneficial to the family and the business (Combs, Shanine, Burrows, Allen & Pounds, 2020).

Our study further contributes greater insights into the role of family in its extendedness as an agent of socialisation in the transmission of values. An extended family is made of a husband and a wife or wives, as well as their children and other blood relatives, namely grandparents, uncles, aunts, cousins, nephews, nieces, stepbrothers, and stepsisters (Agbim, 2018; Cowell & Saunders, 2010; Obot, 2001). Our study argues that the value of the extended family lies in the interdependence that it engenders and the multiple caregivers it provides for children. It is because of the extendedness of the family and these multiple caregivers that our study also shows that in an indigenous Black African context, vertical, horizontal, and oblique transmission does not always follow set patterns. We found that with certain socialisation agents value transmission occurs through more than one channel.

In the context of indigenous Black African families, the African cultural values system is based on the notion of social interdependence, which is central to the African worldview of *Ubuntu* (Letseka, 2012). *Ubuntu* as an African philosophy describes the collectivistic nature of Black South African indigenous culture (Laher, 2013). *Ubuntu* originates from an African maxim, "*umuntu ngumuntu ngabantu*" (in Nguni languages), translating as "a person is a person through other persons" (Laher, 2013:214; Letseka, 2012:48). It can be argued that owing to the philosophy of Ubuntu, non-familial socialisation agents are also key sources of values and agents in the transmission of values to NextGen members. Ubuntu represents an African conception of the human being and that person's relationship with other individuals and the community (Khomba, Bakuwa & Kangaude-Ulaya, 2013). A human being is expected to create strong, positive, and respectful relationships with other people and with the communities they interact with. In this way, the NextGen of family members become socialised and introduced to other value sets that are external to the family value sets.

5.2 PRACTICAL IMPLICATIONS

Given the findings of our study, the senior generation of family members (biological parents, family elders, and business founders) should take cognisance of the influence they have on the formation and transmission of values among NextGen members. Since the senior generation act as socialisation agents in the transmission of values, they must constantly be aware of how they live their values as it is through their actions that they influence the NextGen members. If they want these values to be transmitted successfully to the NextGen, they must behave in a manner that promotes these values. By demonstrating acceptable behaviour, the NextGen is exposed to a set of values that guide their future behaviours. For example, behaviours that demonstrate the value of innovation and entrepreneurship among family members, shared unity and vision among the family and the business, as well those that encourage the long-term sustainability of the family business, should be

lived out in the actions of the senior generation, and consciously focused on during the socialisation process.

Our study found that the family, in its extendedness, is an important agent of socialisation in the transmission of values. We, therefore, suggest that the significant role that extended family members play in the socialisation of values among the NextGen should be noted by senior members as well as the NextGen members. However, biological parents must monitor this value set taught by extended family members to their children, so that when it begins to differ from the value sets they prefer, action can be taken.

5.3 LIMITATIONS AND DIRECTIONS FOR FUTURE STUDIES

Although our study has allowed for an integrated approach to exploring socialisation agents in IBSA business families by using a multiple case design, its scope for generalisation is limited by this approach. We suggest that a next step could be to explore the influence that these agents may have on the entrepreneurial socialisation of NextGen of family members. As proposed by Bika *et al.* (2019), value transmission is not dependent on internal family members only but also on the influence and pressures of the wider social and economic factors affecting the family and the business. By utilising a longitudinal design over several family generations, future studies could enable a deeper understanding of how the roles of these socialisation agents evolve over time from one generation to the next. While our study has revealed the role played by extended family members as socialisation agents in the value transmission process, we did not explicate the nature of extendedness and how this nature impacts the socialisation of the NextGen members on aspects such as family business ownership and leadership, nurturing transgenerational entrepreneurship, and legacy. We, therefore, recommend that future studies look at how extended family members influence NextGen's learning as potential family business successors. Particularly, future research may look at the role of family values in shaping and choosing family business successors. Furthermore, future studies could look at how indigenous African value systems premised on the philosophy of *Ubuntu* shape the succession processes in family businesses.

In contrast to the literature, which highlights that social media influences the development of values among the NextGen of family members, social media was not identified as an important socialising agent in the current study. A possible explanation for this finding could be that most of the participants were no longer adolescents, the stage at which social media significantly influences value transmission (Abbas, Aman, Nurunnabi & Bano, 2019; Arias, 2019). We, therefore, recommend that future studies be conducted on modern indigenous African families with adolescents born during the emergence of social media and technologies to determine the influence such media and technologies may have on the values sets of NextGen members.

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The impact of Covid-19 to family businesses in Gauteng

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ABSTRACT

Covid-19 disruption brought uncertainty and confusion not only to heads of states globally, but to business owners as well. The inability to trade due to countries shutdown led to decline in economic activities and a decline in economic growth. Companies, big or small, lost enormous amounts of income, while employees on the other hand, lost their jobs and some suffered a huge pay cut. The businesses that were hard hit are small businesses which are family owned. This article seeks to explore the impact caused by Covid-19 on family businesses in South Africa in the Gauteng province. This is on the premise that it was envisaged that one thousand (1000) small businesses were forced to shut down in the year 2021 due to Covid-19 impact.

Objective: The objective of this paper is to determine the impact of Covid-19 on small businesses who are family owned in the Gauteng region of South Africa.

Methodology: This article followed a conceptual method of research approach with interrogating literature available on this topic.

Findings: The research findings indicated that a number of these business were adversely affected by the pandemic, especially loss of revenue and inability to keep the staff turnover as there was no money flowing into their business. The findings also revealed that it is not all doom and gloom, with a gradual easing of lockdown restrictions, economy is slowly recovering. It has also been discovered that among smaller family businesses there is now a better understanding of how good governance practices can help to reduce risks and protect the business and the family.

Keywords: Family business, Covid-19, Economic growth.

1 INTRODUCTION

Corona virus pandemic not only created health hazards, but it further brought disastrous consequences to economies globally. The livelihood of many entrepreneurs and small business owners were threatened by this pandemic. It has been reported that 50% of business owner when interviewed cited that their business operations could only continue for three months under these circumstances (Joy, 2020). As with many countries, it has been seen that family businesses contributes a huge sum to the GDP. As stated by Broons (2015), in Australia particularly, they contribute over 70% to the country's GDP. With this contribution one can deduce that family businesses are a life blood to most economies in the world. Around the world the experience is that healthy family businesses are needed to create sustainable jobs and create wealth. In South Africa, this sector contributes 30% towards the GDP of this country (Top Performing Companies, 2017). Gauteng province is the heart of industrial development in South Africa with lots of small businesses operating in it. It goes without saying that Covid-19, did not do justice to any of these family businesses in this region.

A survey conducted by KPMG (2020) in collaboration with the Nelson Mandela University, revealed that the impact of the pandemic differs amongst family businesses, from having a negative impact and struggling to survive, to having a positive impact and seeing growth during the period of global lockdown. Nevertheless, for most it has proved to be cumbersome on the business side of things,

while opening a room for strong leadership and decisive decisionmaking to deal with the needs of both the family and the business. These views are shared by Finfind (2020) as they averred that 76.2% of businesses surveyed in South Africa experienced a significant decrease in revenue. The latest data from Statistics South Africa did not paint a good picture as it showed that close to 1,000 businesses have been liquidated in the first half of 2021 (FinFind, 2021). Furthermore, it was reported that a staggering number of 997 liquidations of companies and close corporations between January and June 2021, was up from 763 businesses over the same period last year. This indeed speaks to the damage that came with the disruption caused by Covid-19, given that South Africa is not yet fully developed, this will have negative effects in the economy.

De Cuyser, Kucukkels and Reuben, (2020) revealed that COVID-19 has not just brought depression to many start-ups, but it has also led to an increase in a much-needed entrepreneurial activity. Several companies and individuals across the world came together in response to, and where possible, tackling this crisis. Hitherto, while these innovative start-ups are indisputably essential for the future of innovation and supporting them is critical, the current COVID-19 crisis also shows the importance of small businesses with more incremental approaches to innovation.

It can never be understated that some businesses have shown how resilient they are when it comes to handling a crisis. Though some did better than others, everyone rallied behind to create a “new normal” that people quickly adapted to.

2 THEORETICAL PERSPECTIVES

2.1 COVID -19 AND BUSINESS OPERATIONS

When the South African government placed the country under national lockdown in March 2020, several businesses affected by the national lockdown were those that are not regarded as providing essential services. Amongst them were industries including those reliant on the movement of goods (supply chain disruptions), the telecommunications sector, selected mining activities due to a decrease in demand for minerals, accommodation and tourism due to travel bans, construction, transport, and various services (STATS SA, 2020).

As argued by Sloan (2020), business operations are the engine of any business and thus, any impact on them can induce growth or closure. They further indicated that the most prevalent impact was on travel restrictions which came with 28% reduction in interaction with clients. Such restrictions, led to cancellation of training, meetings and 9% of valuable projects were put on hold.

The above views are supported by McGinness and Clabro (2021) who purported that with uncertain markets and government restrictions on social interactions and business operations in most areas of the world, the immediate impact of Covid-19 was on companies' revenues. This indicates that South African family businesses were not the only ones affected but the global operations were all striving. It can not be overemphasized that business operations were negatively impacted due to restrictions.

As cited by Pitje (2020), businesses that rely on people visiting their premises and gathering in large crowds, such as restaurants, theatres and sporting venues, had to completely shut for at least three weeks. This was not a case of reduced turnover, but there was no turnover at all. One sector that was hit most by global and local travel bans was the travel and tourism sector and their revenues were reduced significantly. These bans led to many business trips, business meetings and conferences being cancelled or postponed.

Barr, Venter and Maury, (2020) posited that while in the manufacturing sector, orders and sales of non-essential products all came to a halt, the unique nature of family businesses could either enhance or restrict their entrepreneurial activities. Thus a well centralised organisational structure and business culture could assist family businesses develop entrepreneurial tendencies which in turn fosters proactivity and innovation during uncertainties.

2.2 IMPACT OF COVID-19 ON BUSINESS CASH FLOW

There's a saying that "Cash is king", this goes for all business owners, their objective when starting a business is to maximise cash flow. In a study published in collaboration with the Department of Small Business Development and FinFind (2020) several business groups, was based on a survey of 1,489 businesses across every major sector. The findings indicated that in the first five months of lockdown, 76.2% of businesses surveyed experienced a significant decrease in revenue. While, 35.2% had cash reserves saved, and of these, 62.6% thought their cash reserves would last between one and three months.

However, only 29.2% of businesses were confident they could pay expenses the following month. This again indicates that the pandemic impacted small businesses in a different way. It is on this premise that Liberti (2020) suggested that debt, diversified portfolios, and longerterm horizons may be in a way shielding family firms from the existential threats facing many other businesses. Conversely, Temkin (2020) concluded that despite the current economic uncertainty and the accelerating pace of change, it is interesting to learn that South Africa's family business sector has high ambitions for quick and aggressive growth over the next five years. This is amidst the time when other businesses are struggling to create revenue, around 78% of South African family businesses reported growth in the last 12 months, and 62% are expecting to grow steadily over the next five years. Lessons can be drawn that the pandemic not only brought shock waves and panic, but it also brought about creativity and new innovations to family businesses on how to conduct their operations in a way that boost their cash reserves.

Nevertheless, a study conducted by 22 ON Sloane (2020) among South African Small businesses, revealed that a rippling 71% of business do not have enough cash to keep their businesses afloat for future months to come. This is due to lack of income and measures put in place to control the pandemic. This gave rise to more businesses resorting to financial institutions for loans and government for assistance.

Tourism sector comprises of several small and family owned business and it was discovered that 83% of their revenues in March 2020 was down more than 50% compared to March 2019, and that 34% of these businesses said their revenues were 100% less.

On the other hand, 58% of these business (especially in the accommodation division) were unable to service their debts in March 2020 (Tourism South Africa, 2021).

2.3 How staff turnover was affected by Covid-19?

As indicated by (PwC, 2020) that while other companies might measure success in fractions, family businesses measure success in generations. While some focus on value only, family businesses focus on values. Nonetheless at the same time, family dynamics and non-business considerations can disrupt even the most profitable enterprise, particularly when catalysed by events such as a generational transition or an external economic crisis.

It was reported that 56% of businesses intended to retrench at least 10% of their workforce due to decline in revenue (22ONSLOANE,2020), which negatively impacted the economy of the country in South Africa. May businesses as well as education sector were seen to be promoting a policy of work-from home. Some companies were requested to come up with the plan showing how they will support their workforce, especially those affected through loss of income and pay cuts.

As soon as many family businesses started to grasp what the pandemic might mean for their companies, they realized that more involvement and input was needed from the family (Pace, 2020). Families embarked on a strategy to re-engage, especially in situations in which management is entrusted to non-family executives. In some instances, senior family members were called back into the business to bring rich historical context, while also ensuring that the family purpose and values remain intact.

While business continuity is at the forefront of all family businesses, during the pandemic it was witnessed that family business tends to have strong employee loyalty and retention (Flack, 2020).

This is attributed to the fact that they are not beholden to third party investors with quarterly reports. They were more open with their finances during this time than before.

2.4 HOW FAMILY BUSINESSES DEALT WITH COVID-19 EFFECTS

In the wake of Covid-19 pandemic restrictions, South African businesses were pushed even further in July 2021 by civil unrest, which manifested riots, looting, and arson causing billions of Rands in damage affecting businesses in KwaZulu- Natal and Gauteng (STATSSA, 2021). The country's President Cyril Ramaphosa announced that plans were in place to assist businesses caught up in the unrest, and especially, those SMMEs that have been affected by the Covid-19 pandemic. The plans included, inter alia, wage support through the Unemployment Insurance Fund (UIF) for employees who have not been able to draw an income due to the riots, as well as for SMMEs in industries impacted by lockdown.

Heyward and Evennett (2021) postulated that a rapidly changing business environment, with fluctuating market trends, new technologies and globalization forcing companies to regularly adapt their operations, has made it to be increasingly important to be aware of what makes a family business resilient. They further alluded that, one major advantage which is enjoyed by many family-owned businesses is their ability to respond quickly to crises. This has been highlighted during COVID-19 crisis as these businesses were flexible, with companies forced to close offices, factories and warehouses almost overnight. Their ability to successfully shift to full-time remote working has been key to survival during this period of uncertainty made them to be outstanding.

Sankhe (2020), indicated that this forced pause on economic due to the pandemic has at some level also helped families regroup and assess their priorities. He further alluded that one of the key issues that has demanded attention of many families during the period of this crises has been business continuity planning. This led to many family businesses to stretch themselves in prioritising continuity when the pandemic hit to stay in the business even after the pandemic woes have ended.

2.5 THE FUTURE OF FAMILY BUSINESSES BEYOND COVID-19

A study conducted by Mugasa and Vikram (2020) in Kenya recommended that for family businesses to stand beyond Covid-19, they need to:

- Consider whether their business will need additional capital, and how they might use their private wealth to help.
- In terms of philanthropic giving, family business might wish to change their current approach to address more pressing issues generated by the crisis. When assessing where they can help, they need to start with their immediate community.
- Family businesses must understand the tax measures being introduced in response to COVID-19 and their effect on their personal tax position as well as liquidity. Then consider how to allocate their assets most effectively.

The above will assist small businesses to be better prepared for unforeseen disruptions that may occur in the future. With better planning, family businesses will be better prepared and managed.

22ONSLOANE (2020) advice small business on the following matters that need to be addressed by both public and private sector to move beyond the effects of COVID-19:

- There must be more investment in research, infrastructure and technology in the healthcare sector, and other key sectors in preparations to support a new type of an entrepreneur.
- Invest immensely in tech start ups that are disrupting education, health, finance, AI and sanitation assisted by Smart Cities and IoT for improved service.
- Investing in formalising the informal sector.

This calls for collaborations between the public sector and the private sector to make way for new innovations and proper measures to be in place for future disruptions.

The disruption brought by COVID-19 has accelerated conversations within families on governance to enable faster decision-making and allow them to engage efficiently with their family members and shareholders (Trimarchi, 2021). Particularly, among smaller family businesses there is now a better understanding of how good governance practices can help to reduce risks and protect the business and the family.

Moreover, family businesses are advised to start thinking about what the future of their companies will look like (Hannon, 2020). They need to think about how to keep things going right now while putting more energy on when we come out of this. Furthermore, businesses need to preserve cash. Proper steps need to be taken to strengthen the balance sheet to get better cash reserves for the future. Moving forward (Finfind 2020), suggested that the common thread among the businesses is that funding and 'going digital' be major priorities. They further cautioned that: "In the wake of 2020, the coming year will likely be a rocky road for most South Africans, but there is still some optimism from entrepreneurs, who courageously continue to build this vital business sector."

The future of family businesses or small owned businesses beyond Covid-19 is not all doom and gloom given that these businesses have proven to be creative in maintaining their strength. With help from government, these businesses can stand any test as they prove to be playing a pivotal role in the GDP of the country. Collaborations, innovation, communication and better management of cash reserves proved to be a leading discussion in seeing the future of these businesses becoming better.

3 RESEARCH METHODOLOGY

A non-empirical approach was followed in this study, which lends itself to a content analysis that is built on the theory and literature review. Conceptual research is defined as a methodology wherein research is conducted by observing and analysing already present information on a given topic. It doesn't involve conducting any practical experiments as it is related to abstract concepts or ideas. The researcher followed an interpretivist approach to understand and describe the meaning of the study undertaken. To explore the impact of COVID-19, be it positive or negative on family businesses of the Gauteng region in South Africa, a qualitative method was used, as the study was descriptive in nature.

This method is chosen on the ground that it provides the researcher with theoretical lenses that provides direction to the research (Saunders, 2009) The literature search followed the typical format of a literature review in research (Creswell, 2009).

The search was of the current literature, from 2019 until 2021. The data bases searched were Google scholar, EBSCOhost and Business websites, which enabled searches in different topics. The search terms used were "Covid-19 and Family Businesses." "Impact of Covid-19 to Family Businesses", "Family Businesses in Gauteng". Google was also used to search for "The future of Family Businesses Beyond covid-19".

Topics included Covid -19 and business operations, Impact of Covid-19 on business cash flow, How Family businesses dealt with Covid-19 effects and the future of Family Businesses Beyond covid-19.

4 KEY FINDINGS AND RESULTS

- Family businesses in the Gauteng region comprises of diversified business activities and were affected by Covid-19 negatively,
- It was noted that the impact of Covi-19 differed from business to business as others were negatively affected while others did not feel the impact,
- It was also revealed that close to 1000 number of small businesses were liquidated.
- Business operations were affected as some businesses needed to put them on halt.
- 71% of businesses do not have enough cash to keep their businesses afloat for future months to come,
- It was also unearthed that 10% of workforce faced up with inevitable retrenchments by 56% of small businesses,

- Cash and cash reserves of these businesses were adversely affected as they declined to the lowest by 35%,
- The looting which happened in KZN and Gauteng while small businesses were suffering from Covid-19 effects, caused more problems which necessitated the country's president to come up with relief measures.
- It was observed that family businesses used Covid-19 to their advantage through strengthening their workforce, improving their continuity and improving on their priorities,
- Family businesses showed resilience by improving on their entrepreneurial activity and innovation, and;
- Speed and agility in response to crisis was attributed to seeing many family owned businesses succeeding.

5 RECOMMENDATIONS

Heyward and Evennett (2021) pointed out several recommendations that can be of vital to family businesses when dealing with crisis. These recommendations includes :1) Sustainability, resilience and responding innovatively to periods of economic disruption have long been hallmarks of successful family businesses; 2) Succession planning is critical to the success and continuity of any family business; 3) Inviting younger family members to join the board, involving them in key decision making and communication so they can develop a clear and confident voice with stakeholders;4) Growing the family business sustainably, whilst taking responsibility for others through philanthropic and social engagements, should be a key focus for leaders; 5) Considerations of global mobility and residence; and 6) As the business climate continues to evolve, it is essential that owners place a key focus on liquidity and robust financing if they are to weather the tough economic conditions that lie ahead. Consequently, these recommendations sound diverse and universal, however, the logical implementation in one's business, big or small can vary depending on what the individual wish to achieve which can be a useful set of aspirational goals to consider for future business development.

6 CONCLUSION

This research indicated that while businesses were adversely affected by Covid-19 impact, others benefitted from it. The study showed that family owned businesses proved to be resilient due to their ability to be innovative. On the other hand, it was also revealed that family business strength lied in family values while other business only concentrates on value. The manner in which retired family members were drawn back to enhance the history of family business through passing down the information for continuity. Good family business structure has been seen to have brought about much needed stability in uncertain times. It can be concluded that, despite the governments interventions to inject cash in businesses, Covid-19 has left a bitter sweet taste in all businesses across the globe.

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Digital skills and competencies for the adoption of 4IR technologies by SMEs in developing and developed countries: a meta-synthesis

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ABSTRACT

The aim of this paper is to systematically review existing literature to comprehensively understand the state-of-the-art in digital skills and competencies required for the adoption of 4IR technologies by Small and Medium-sized Enterprises (SMEs), in both developing and developed nations. We employ a Digital Inclusion model tailored to developing countries and conduct a Systematic Literature Review (SLR) utilizing Meta-synthesis methodology. We extracted and analyzed data from 29 primary papers. The findings reveal a significant deficit in digital skills, particularly in developing countries. This deficit adversely affects the adoption of 4IR technologies by SMEs.

Keywords: Digital Skills, 4IR technologies, Small and Medium Enterprise, Systematic Literature Review

1 INTRODUCTION

The technologies associated with the Fourth Industrial Revolution (4IR), including Artificial Intelligence (AI), Blockchain, the Internet of Things (IoT) and 3D printing, transcend digital, physical and biological domains. In both developed and developing nations, these technologies hold promise for addressing various social and economic challenges. However, existing literature often suggests that Small and Medium Enterprises (SMEs) face the risk of exclusion from the 4IR due to their limited human and financial resources (Isabelle, Mosupye-Semenya, & Dhliwayo, 2023).

Several studies emphasize the heightened skills demand associated with 4IR technologies, with a significant shortage noted in developing countries like South Africa (Bayode et al., 2019; Sutherland, 2020). These shortages stem from various factors discussed in the literature, including the responsibility of higher education institutions in training and educating individuals for current job roles (Makgato, 2019) and the necessity for ongoing employer-driven training (Setyaningsih, Kelle, & Maretan, 2020).

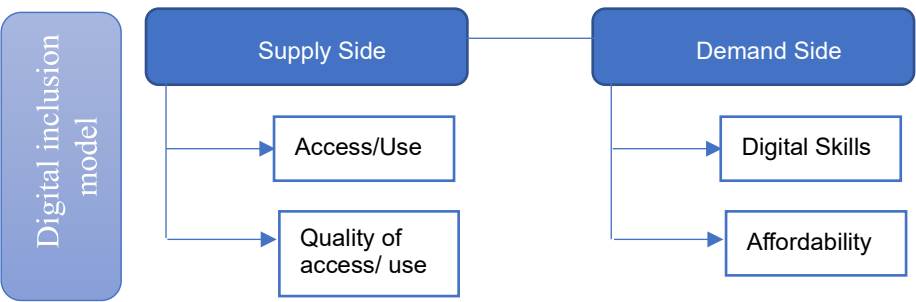
This study is part of a broader research effort aimed at understanding National Innovation Systems in both developed and developing nations. It becomes evident that these systems inadequately address competencies and digital skills, particularly concerning 4IR technologies adoption. Therefore, this paper systematically examines existing literature to gauge the state-of-the-art in digital skills and competencies crucial for the adoption of 4IR technologies among SMEs, comparing developing and developed countries. We posit that digital skills are a pivotal factor influencing 4IR adoption, differentiating between the two groups.

The rest of this paper reports on the Literature Review, Methodology and Analysis of the Systematic Literature Review.

2 THEORETICAL FRAMEWORK

In a critical review of the digital inclusion literature, Sharp (2022) underscores that current frameworks predominantly focus on the supply-side, originating from developed countries in the Global North. Sharp argues that, especially in developing countries, the demand side of digital inclusion becomes paramount and centers around two core components: digital skills and affordability (see Figure 1).

Figure 1: Digital Inclusion model



Source: Sharp (2022)

Therefore, Sharp (2022) implies that for digital inclusion to thrive in developing countries, all four elements illustrated in Figure 1 must coexist. In the context of our study, this signifies that for SMEs to embrace and utilize 4IR technologies, access to these technologies must be available, the quality of access and usage must be high, digital skills must be present, and 4IR technologies must be affordable.

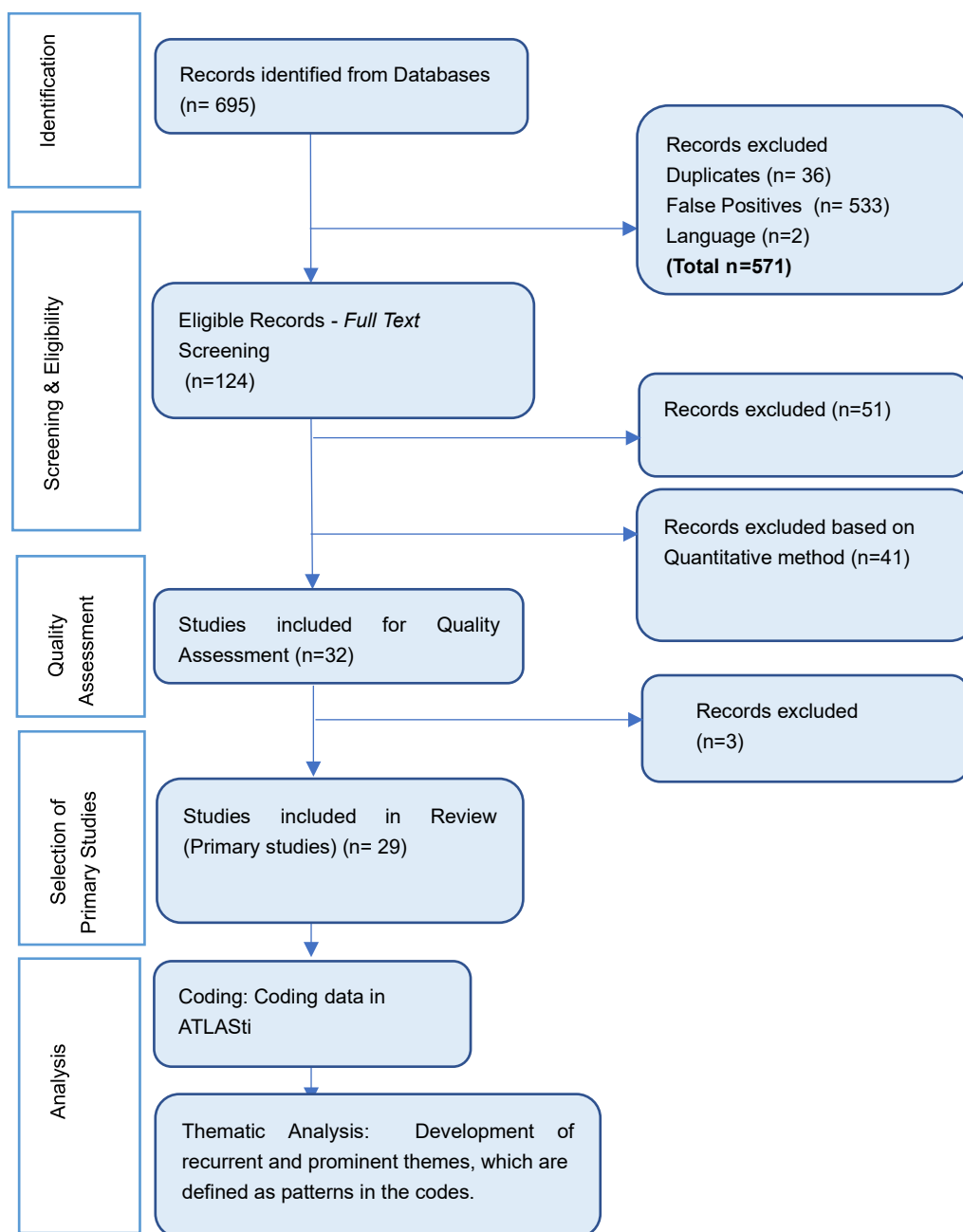
Although all four aspects are equally important, the focus of our study is on the digital and competence skills needed by SMEs in developing countries. Therefore, we ask the following research question:

RQ1: What is the state of art in competencies /skills for adopting 4IR technologies in the existing literature, between developed and developing countries?

3 METHODOLOGY

We conducted a systematic literature review followed by a Meta-synthesis using thematic analysis (refer to Figure 2).

Figure 1: Systematic Review PRISMA process



Source: Page et al. (2021)

It is crucial to note that the systematic literature review was a part of a broader study that investigated National Innovation Systems in both developed and developing nations. The larger study is under journal article review. A limitation identified in the larger study pertains to the exclusion of skills and competencies (except in R&D) within National Innovation Systems, despite many primary studies emphasizing their importance. This conference paper serves as a platform to address this issue, as we contend that discussing skills in the context of 4IR technology adoption is of paramount importance for developing nations.

3.1 IDENTIFICATION

We consulted SCOPUS, Web of Science (WoS), and ProQuest databases due to their extensive coverage of academic journals (Linnenluecke et al., 2020). We considered only academic literature, encompassing journal articles, books, book chapters, and conference proceedings published

between 2011 and 2023. This timeframe corresponds to the mention of 4IR technologies at the 2011 Hannover Conference, ensuring the inclusion of all relevant papers.

The search string used in all search engines is:

(SME OR "Small and Medium Enterprise") AND Adoption AND ("4IR technolog" OR "Fourth Industrial Revolution technolog*" OR "Industry 4.0 technolog*" OR "Smart Manufacturing")*

This method identified 695 records, which were then taken through various levels of screening.

3.2 SCREENING

These records underwent screening for duplicates, language, and false positives. Consequently, 571 papers were excluded, leaving 124 for full-text screening (refer to Figure 2). We meticulously assessed all 124 papers based on specific criteria:

Inclusion: Papers focused on SMEs and 4IR technology adoption and addressed the research question.

Exclusion: Papers concerning the adoption of 4IR technologies by non-SME entities (e.g., individuals, sectors, industries), non-4IR technologies, bibliographies, and quantitative studies. (Meta-synthesis relies solely on qualitative studies.)

3.3 QUALITY ASSESSMENT

This process yielded 32 studies, which underwent quality assessment. Three papers were excluded as they failed to meet quality criteria, which encompassed a clear aim/purpose, methodology for data collection and analysis, and relevance to our research question (Gough, 2007).

3.4 DATA ANALYSIS

We ultimately selected 29 papers as primary studies, which we categorized into developed and developing countries based on the country of study. Subsequently, we transferred these papers to ATLAS.ti for data extraction, where we coded all quotations pertaining to competencies and skills. (For the larger study, other data related to National Innovation Systems was also extracted.). Thematic Analysis was employed to synthesize the data, enabling us to identify recurring themes within the codes and elucidate the landscape depicted in the literature (Castleberry & Nolen, 2018).

4 RESULTS

Overall, our findings indicate that competencies and skills are more prominently featured as topics of concern in developing countries (n=15) than in developed ones (n=3).

4.1 COMPETENCIES/SKILLS IN DEVELOPED COUNTRIES

Table 1: Availability of competencies/skills in developed countries

Country	Availability of Competencies	Impact on adoption	Reference
Italy	Technical skills present or training available, although need is expressed	Negative impact on Implementation	Cimini et al (2020)
Singapore	Challenges experienced: skilled labour shortages, capability issues, dependency on imported labour	Negatively impacts adoption	Surianarayanan and Menkhoff (2020)
Germany	Challenges experienced: Skilled workers lacking in the winery sector	Negatively impacts adoption	Dressler and Paunovic (2021)

Cimini et al. (2020) noted that during their interviews with various companies at different stages of 4IR technology adoption, these companies possessed the technical skills required. This included advanced usage of IT devices, software knowledge, and proficiency in data analysis. However, these companies expressed a need for these skills, indicating their impact on technology implementation. Conversely, Surianarayanan and Menkhoff (2020), as well as Dressler and Paunovic (2021), identified challenges in the form of skilled labor shortages, capability issues, dependency on imported labor, and a lack of qualified workers in SMEs, which hindered the adoption of new technologies in Singapore and Germany, respectively.

From the above, it is apparent that, in some developed countries, skills or training for the adoption and implementation of 4IR technologies are readily available. However, in others, skills remain a significant challenge. Furthermore, it appears that there is relatively limited literature on competency skills in developed countries. Therefore, we shift our focus to developing countries."

4.2 COMPETENCIES/SKILLS IN DEVELOPING COUNTRIES

Table 2: Availability of competencies/skills in developed countries

Country	Availability of Competencies	Impact on adoption	Reference
LATAM	4.0 skills lacking or basic, some SMEs still using paperbased work orders	Lack of skills leads to lack of adoption, therefore missed opportunity for getting more customers	De Lucas et al. (2022)
India	Skilled talent pool lacking	Negatively impacts adoption and should therefore be included in national policy	Dutta et al. (2020)
India	High requirement for skilled and qualified workforce	Skills are a critical challenge to implementing Industry 4.0	Joshi et al. (2022)
India	Lack of skilled manpower	Impedes implementation	Wankhede and Vinodh, (2022)
Colombia	Lack of qualified staff	Negative influence on adoption	Rojas-Berrio et al. (2022)

SubSaharan Africa	Lack of skills to implement 4IR technologies	May cause failure for SMEs to fully adopt 4IR technologies	Serumaga-Zake and van der Poll (2021)
Various developed and developing	Digitalisation knowledge and expertise are a challenge	Lack of skills is a barrier to adoption	Ghobakhloo et al. (2022)
Various developed and developing	Lack of appropriate skills of the employees	A major challenge to adoption	Setyaningsih et al. (2020)
Various developed and developing	Necessary skills and technical proficiency lacking after adoption of technologies	Negatively impacts on successful adoption	Shaikh et al. (2021)

De Lucas, Ancillo, Gavrilă, and Díez (2022) discovered a significant deficiency in digital skills among SMEs in Latin America (LATAM). In fact, they described these skills as 'non-existent' in many SMEs that still rely on manual, paper-based processes for their operations. De Lucas et al. (2022) also observed that these SMEs have a diverse workforce in terms of age, training, and willingness to acquire digital skills, which could be seen as an advantage.

Similarly, in the context of India, Dutta, Kumar, Sindhwani, and Singh (2020) recommended the presence of a skilled talent pool in manufacturing SMEs, emphasizing its critical role in the success of Industry 4.0 adoption. This sentiment is echoed by Joshi, Sharma, Bartwal, Joshi, and Prasad (2022) and Wankhede and Vinodh (2022), whose research indicates a shortage of skilled workers in India, particularly in integrating Industry 4.0 technologies with existing operations. This skills gap, they argue, is a major factor contributing to resistance to 4IR technology adoption among SMEs.

In Colombian Manufacturing SMEs, Rojas-Berrio, Rincon-Novoa, Sánchez-Monroy, Ascúa, and Montoya-Restrepo (2022) identified a lack of qualified staff as a significant barrier to the adoption of 4IR technologies. They placed part of the blame on universities for not providing education related to the management of these technologies.

Turning to Sub-Saharan Africa, including South Africa, Serumaga-Zake and van der Poll (2021) highlighted a shortage of key technical skills, particularly in AI, for implementing 4IR technologies in manufacturing SMEs. They attribute this issue to a lack of investment in education and training, which hampers SME participation in the 4th Industrial Revolution.

Considering both developed and developing countries, Ghobakhloo, Iranmanesh, Vilkas, Grybauskas, and Amran (2022) concluded that digitalization knowledge and expertise are pivotal factors in 4IR technology adoption by SMEs. They also emphasized that the absence of these skills acts as a significant barrier. Setyaningsih, Kelle, and Maretan (2020) noted a common challenge in both types of countries: the lack of appropriate skills among employees, which may result from inadequate education and training initiatives by companies. Finally, Shaikh, Ara, Kumar, Syed, Ali, and Shaikh (2021) underlined the importance of necessary skills and technical proficiency post-adoption of technologies, as the lack of these competencies can lead to unsuccessful technology adoption in both developed and developing nations.

5 DISCUSSION

The Research Question this study was attempting to answer was:

What is the state of art of competencies /skills for adopting 4IR technologies in the existing literature, between developed and developing countries?

Our analysis reveals a substantial disparity in the emphasis on competencies and skills concerning 4IR technology adoption between developed and developing countries.

5.1 COMPETENCY AND SKILL GAPS IN DEVELOPED COUNTRIES

While the limited attention given to skills in developed countries' literature may suggest an existing proficiency, we argue that this may not be the case. It is plausible that the skills are simply taken for granted, or researchers may focus on different aspects of 4IR adoption. Nevertheless, a more comprehensive exploration of skills and competencies in developed countries is essential, as it could uncover hidden deficiencies that may hinder the full potential of 4IR technologies.

5.2 COMPETENCY AND SKILL GAPS IN DEVELOPING COUNTRIES

In contrast, developing countries exhibit a more robust discourse on the need for competencies and skills among SMEs to engage with 4IR technologies. This is indicative of the greater challenges faced by these nations in embracing these technologies. Multiple studies underscored the need for government intervention, educational reforms, and industry collaboration to bridge the skills gap (Gibb, 2022; Oyelaran-Oyeyinka, 2019; Varma, 2017). Furthermore, the availability of skills in developing countries significantly affects the pace of 4IR technology adoption, contributing to a digital divide both within and across nations.

6 CONCLUSION:

In conclusion, our systematic literature review and Meta-synthesis indicate that the prominence of competencies and skills concerning the adoption of 4IR technologies among SMEs differs significantly between developed and developing countries. While developed countries appear to underemphasize the importance of these skills in their literature, the discourse in developing countries emphasizes the critical need for them. This divergence highlights a potential imbalance in the global adoption of 4IR technologies, which could exacerbate existing economic disparities.

Our study contributes to the literature on digital inclusion and is in line with Sharp's (2022) digital inclusion model for developing countries, emphasizing the importance of the digital skills he integrated into the model for developing nations. In practical terms, this study offers guidance to SME managers, highlighting the significance of providing their staff with digital skills if they intend to adopt 4IR technologies in their businesses.

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ANNEXURE A: PRIMARY STUDIES

	Authors	Article Title	Developed Country	Developing Country	Type of publication
1	Alexopoulos, K., Nikolakis, N., & Xanthakis, E. (2022).	Digital Transformation of Production Planning and Control in Manufacturing SMEs-The Mold Shop Case	Greece		Journal article
2	Arcidiacono, F., Ancarani, A., Di Mauro, C., & Schupp, F. (2019)	Where the Rubber Meets the Road. Industry 4.0 among SMEs in the Automotive Sector	Italy		Journal article
3	Chen, C. L. (2020)	Cross-disciplinary innovations by Taiwanese manufacturing SMEs in the context of Industry 4.0: IMS	Taiwan		Journal article
4	Chen, C. L., Lin, Y. C., Chen, W. H., Chao, C. F., & Pandia, H. (2021)	Role of Government to Enhance Digital Transformation in Small Service Business	Taiwan		Journal article

5	Cimini, C., Boffelli, A., Lagorio, A., Kalchschmidt, M., & Pinto, R. (2020)	How do industry 4.0 technologies influence organisational change? An empirical analysis of Italian SMEs	Italy		Journal article
6	Da Roit, B., & Iannuzzi, F. E. (2022)	One of many roads to industry 4.0? Technology, policy, organisational adaptation and worker experience in 'Third Italy' SMEs	Italy		Journal article
7	Dressler, M., & Paunovic, I. (2021)	Sensing Technologies, Roles and Technology Adoption Strategies for Digital Transformation of Grape Harvesting in SME Wineries	Germany		Journal article

	Authors	Article Title	Developed Country	Developing Country	Type of publication
8	Endrődi-Kovács, V., & Stukovszky, T. (2022)	The adoption of industry 4.0 and digitalisation of Hungarian SMEs	Hungary		Journal article
9	Garbellano, S., & Da Veiga, M. D. R. (2019)	Dynamic capabilities in Italian leading SMEs adopting industry 4.0	Italy		Journal article
10	Ietto, B., Ancillai, C., Sabatini, A., Carayannis, E. G., & Gregori, G. L. (2022)	The Role of External Actors in SMEs' Human-Centered Industry 4.0 Adoption: An Empirical Perspective on Italian Competence Centers	Italy		Conference Paper
11	Surianarayanan, G., & Menkhoff, T. (2020)	Outcomes of an expert survey: Are Singapore's manufacturing small and medium enterprises ready to embrace industry 4.0?	Singapore		Conference Paper
12	Wang, J., Lu, Y., Fan, S., Hu, P., & Wang, B. (2022)	How to survive in the age of artificial intelligence? Exploring the intelligent transformations of SMEs in central China	China		Journal article
13	De Lucas, A., Ancillo, S. G., Gavrilă, J. R. F. D. C., & Díez, J. C. (2022)	LATAM and Spanish SME barriers to Industry 4.0		Latin America	Journal article
14	Dutta, G., Kumar, R., Sindhvani, R., & Singh, R. K. (2020)	Digital transformation priorities of India's discrete manufacturing SMEs – a conceptual study in perspective of Industry 4.0		India	Journal article
15	Joshi, S., Sharma, M., Bartwal, S., Joshi, T., & Prasad, M. (2022)	Critical challenges of integrating OPEX strategies with I4.0 technologies in manufacturing SMEs: a few pieces of evidence from developing economies		India	Journal article
16	Marcysiak, A., & Pleskacz, Ż. (2021)	Determinants of digitization in SMEs		Poland	Journal article

17	Chuah, M. H., & Thirusamry, R. (2021)	Challenges of big data adoption in Malaysia SMEs based on Lessig's modalities: A systematic review		Malaysia	Journal article
18	Mittal, S., Khan, M. A., Purohit, J. K., Menon, K., Romero, D., & Wuest, T. (2020)	A smart manufacturing adoption framework for SMEs		India	Journal article
19	Mokonyama, M., Malatji, M., & Mlitwa, N. (2022, October)	Addressing operational challenges of small and medium enterprises of the logistics industry-Potential for autonomous vehicles		South Africa	Conference Paper
	Authors	Article Title	Developed Country	Developing Country	Type of publication
20	Ndou, A. T., Madonsela, N. S., & Twala, B. (2020)	The era of digital technology: Analysis of factors contributing to economic growth and sustainability.		South Africa	Conference Paper
21	Rojas-Berrio, S., Rincon-Novoa, J., Sánchez-Monroy, M., Ascúa, R., & Montoya-Restrepo, L. A. (2022)	Factors Influencing 4.0 Technology Adoption in Manufacturing SMEs in an Emerging Country		Colombia	Journal article
22	Serumaga-Zake, J. M., & van der Poll, J. A. (2021)	Addressing the Impact of Fourth Industrial Revolution on South African Manufacturing Small and Medium Enterprises (SMEs)		South Africa	Journal article
23	Shah, S., Lin, T. F., & Samadi, S. (2021, November)	Accessibility and Adoption of Industry 4.0 Technologies for Small Manufacturing Firms		Malaysia	Conference Paper
24	Wankhede, V. A., & Vinodh, S. (2022)	Analysis of barriers of cyberphysical system adoption in small and medium enterprises using interpretive ranking process		India	Journal article
25	Bhalerao, K., Kumar, A., Kumar, A., & Pujari, P. (2022)	A study of barriers and benefits of artificial intelligence adoption of SMEs	Various developed and developing		Journal article
26	Bin, M., & Hui, G. (2021)	A Systematic Review of Factors Influencing Digital Transformation of SMEs	Various developed and developing		Journal article
27	Ghobakhloo, M., Iranmanesh, M., Vilkas, M., Grybauskas, A., & Amran, A. (2022)	Drivers and barriers of Industry 4.0 technology adoption among manufacturing SMEs: a systematic review and transformation roadmap: IMS	Various developed and developing		Journal article
28	Setyaningsih, S., Kelle, P., & Maretan, A. S. (2020)	Driver and barrier factors of Industry 4.0 implementation for small and medium-sized enterprises: an overview	Various developed and developing		Conference Paper

29	Shaikh, D., Ara, A., Kumar, M., Syed, D., Ali, A., & Shaikh, M. Z. (2021)	A two-decade literature review on challenges faced by SMEs in technology adoption	Various developed and developing	Journal article

The contribution of the Melville Koppies to nature-based tourism in the city of Johannesburg

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ABSTRACT

This paper is an exploratory qualitative study that looked at the contribution that nature-based tourism can bring in urban centres. This form of tourism is often referred to as green tourism, ecotourism, and more recently sustainable tourism. Cities like Johannesburg are usually areas of socio-economic needs in terms of land use, therefore it is not fully understood the importance of keeping a big area of empty land for intangible leisure and cognitive pursuits when there are social tangible needs such as infrastructures for houses, hospitals, and schools. This study explores the value of a designated nature-based area in a large city, Johannesburg. The research adopted a qualitative approach using one-on-one, semistructured interviews as the data collection technique with visitors onsite in this nature area called Melville Koppies. The findings reveal that tourism in this natural area provides social and environmental benefits to the people living in and visiting Johannesburg.

Keywords: Nature-based tourism, urban green spaces, sustainable tourism, protected area.

INTRODUCTION

The present study is an assessment of the contribution of nature reserves set aside for tourism in megacities such as Johannesburg, South Africa. The research question posed was, does Melville Koppies provide social and environmental benefits to the people living in and visiting Johannesburg?

Nature-based tourism (also referred to as ecotourism and more recently sustainable tourism) has been regarded as one of the fastest growing tourism industries, and is expected to continue growing in the 21st century as open land areas associated with nature-based tourism become more rare due to massive human population increases (Addas, 2023; Buckley, Pickering & Weaver, 2003). Therefore, it has recently become a significant area of research in tourism studies (Butler, 2020; Guo, Jiang, & Li, 2019). This is usually understood to be a tourism pursuit undertaken in a natural setting that has been developed in order to conserve or protect the features of natural areas (Addas, 2023; Hall & Boyd, 2005). It is considered to be one of the panaceas for the concerns over the escalating global environmental problems while playing a part in some instances of slowing local cultural degradation (Guo et al., 2019; Streimikiene, Svagzdiene, Jasinskas, & Simanavicius, 2021). Moreover, this is often seen as a tourism activity that can generate positive economic incomes as well as helping with environmental and cultural preservation, and the continued conservation practices within the environment it takes place in (Oviedo-Garcia, Vega-Vazquez, Castellanos-Verdugo, OrgazAguera, 2019; Bushell, Staiff, & Eagles., 2007; Buckley et al., 2003). Nature-based tourism takes place in open access areas such as rural areas or peripheries where there are considerations of the ongoing protection of important cultural aspects/values and, or, a great source of unique biodiversity (Hansen & Defries, 2007). In other words, nature-based tourism often occurs in less developed areas where there is less physical infrastructures and associated opportunities for

economic activities. So, it has become relevant to question in urban areas how these areas serve social needs. To this end this present study is deemed exploratory as it is one the few studies that has considered the value of the nature-based tourism contribution of Melville Koppies Nature Reserve (MK) situated within the city of Johannesburg, South Africa. The MK is a suitable example of nature-based tourism in urban settlements as it is a natural asset located right in the middle of the city of Johannesburg deemed a national monument as well as a cultural heritage site (Friends of Melville Koppies, n.d.) with a major historical significance.

THE MODERN HISTORY OF THE MELVILLE KOPPIES

The MK was left to the people of Johannesburg by Frans Geldenhuys when he died in 1929 (Friends of Melville Koppies, n.d.). In 1947, Councillor H.M.J van Rensburg was concerned by the rapid development of housing expanding across the Melville Koppies area and destroying its historical significance. He started to campaign for the proclamation of the eastern part of the Koppies as a nature reserve. In 1950, the Johannesburg city parks drew up plans that supported van Rensburg noting that the indigenous flora in this area was worth preserving. However, all plans were shelved. This led to delegations of various bodies to the Johannesburg City Council in 1958 to continue this lobby to protect MK from housing development. Later that year the provisional fencing of the Koppies was indeed completed. MK were proclaimed as a South African National Monument on the 28th of July 1978. In 1989 the Johannesburg Branch of the Botanical Society was granted permission to manage the ridge (Friends of Melville Koppies, n.d.). Protected areas such as the MK are often helped with their preservation by becoming sites for nature-based tourism. Academic research has supported the value of nature-based tourism as will now be discussed.

LITERATURE REVIEW

The literature review for this paper consists of understanding the philosophy behind nature-based tourism, the reasons for proclaiming nature reserves, the relationship between tourism and nature reserves as protected areas, and the sustainable tourism concept.

UNDERSTANDINGS OF NATURE-BASED TOURISM

Nature based tourism has been subjected to various definitions but three are highlighted as integral to this research. The first is one of the most common definitions by Fredman, WallReinius, and Lundberg (2009) that stated, "Nature-based tourism includes people's activities when they visit natural areas outside of their usual surroundings". The second is a definition of nature-based tourism was proposed by Bartoletti, Magro-Lindenkamp, and Sarries (2019) who integrated the value of recreation to the concept describing it as a visitation to a natural destination which may be the venue for recreational activity. Lastly, another useful definition of nature-based tourism was suggested as "all forms of tourism focusing on visitation to natural or near natural areas" (Jones & Wynn, 2019). In all three definitions, two main words stand out: visitation and nature. Therefore, the assumptive explanation of nature-based tourism for this study was considered as involving - a visitation for the appreciation and enjoyment of a natural area that has value for tourism.

THE REASON BEHIND NATURE RESERVES

Nature reserves alongside other protected areas are generally places of protection for biodiversity (Wei, Swaisgood, Pilfold, Owen, Dai, Wei, Ham, Yang, Yang, Gu, Zhang, Yuan, Hong, Tang, Zhou, He, Zhang, 2020; Graham, Baumgartner, Beaumont, Rodriguez, & Grech, 2019) and as places of preservation of local cultures especially in cultural heritage protected areas (Satria, Yogia, Zainal, & Wedayanti, 2021). The following reasons have been identified to motivate the establishment of a nature reserve: the general desire to protect nature (Frainer, Mustonen, Hugu, Andreeva, Arttief, Arttief, Brizoela, Coelho-de-Souza, Printes, Prokhorova, Sambou, Scherer, Shadrin, and Pecl, 2020; Sannigrahi, Chakraborti, Joshi, Keesstra, Sen, & Kumar, 2019); the preservation of a particular habitat or species (Jaloviar,

Sedmakova, & Pittner, 2020); conservation education (Quesada-Rodriguez, Orientale, DiazOrozco, & Selles-Rios, 2021; Zhang, Guan, Fei, Turvey, & Fan, 2020); to develop sustainable tourism

practice (Zhang, Zhong, & Yu, 2022); enhance community development (Zhang et al., 2022; Buckley, 2020); and promotion of human well-being (Zhang et al., 2022; Yergeau, 2020). A summary of these multiple reasons for the establishment of a nature reserve is suggested by Buckley (2020) as nature reserves are area of conservation with the main purposes of: the protection of biodiversity, local development and community empowerment as well as reducing human's negative impacts on the ecosystem through practices such as sustainable tourism.

Tourism and nature reserves defined as Protected Areas.

Protected Areas (PA) such as nature reserves are first physical regions of conservation. As such they provide a biodiversity physical site, and an attraction for the consumption of nature experience as enjoyment by tourists. In this sense, PAs are established often primarily to preserve some type of biophysical process or condition such as a wildlife population with tourism as a spinoff activity (Spenceley, McCool, Newsome, Baez, Barborak, Blye, Bricker, Sigit Cahyadi, Corrigan, Halpenny, Hvenegaard, Malleret King, Leung, Mandic, Naidoo, Rüede, Sano, Sarhan, Santamaria, Beraldo Sousa, & Zschiegner, 2021), habitat (Hummel, Poursanidis, Orenstein, Elliott, Adamescu, Cazacu, Ziv, Chrysoulakis, & Van der Meer, 2019), natural landscape (D'Aloia, Naujokaitis-Lewis, & Blackford, 2019), or cultural heritage such as a community's cultural tradition (Gordon, 2019; Taff, Benfield, Miller, D'Antonio, & Schwartz, 2019) and often for spiritual values (Taff et al., 2019). Tourists visit these PAs to understand and appreciate the values for which the area was established and to gain personal benefits. Therefore, tourism is often seen as tool to enhance achieving the nature goals of PAs (Gordon, 2019). Tourism is often considered to be able to provide conservation with an economic justification as tourism is a means of building support for conservation that can bring financial capital, marketing and subsequently infrastructure such as roads and jobs to support the tourist needs (Bhammar, Li, Molina, Hickey, Pendry, & Narain, 2021; Newsome, Moore & Dowling, 2002). In other terms, tourism then provides considerable benefits to areas such as nature reserves and their communities (Oviedo-Garcia et al., 2019; Bushell et al., 2007). This is reflected by the increase of jobs for local residents and the increase of income in the region (Bianchi & de Man, 2021; Manzoor et al., 2019). Nature-based tourism also leads to the stimulation of new tourism enterprises (Tervo-Kankare, 2019), and so local economy diversity (Fossgard & Fredman, 2019). In addition, PA such as nature-based tourism often encourages: the local manufacture of goods to sell to tourists (artefacts made locally) or supply to tourist facilities (food resources for meals, tour guides etc.) (Fossgard & Fredman, 2019). This facilitates opportunities for local residents to enter new markets that in developing countries can also generate a foreign exchange inflow of value to the entire economy (Ollivaud & Haxton, 2019). The interrelationship of these new elements can then improve local living standards and generate local tax revenues (Manzoor et al., 2019). Local residents may also learn new skills (Fossgard & Fredman, 2019). Lastly, government realisation that naturebased tourism is generating value for local communities often increases public funding for PAs (Oviedo-Garcia et al., 2019; Eagles et al., 2002). Tourism ultimately helps to strengthen the protection of natural and cultural heritage sites (Gao & Su, 2019; Santa & Tiatco, 2019). This value ascribed by tourism also transmits conservation values, through education and interpretation helping to communicate the value of nature while often safeguarding significant cultural heritage for visitors and residents (Kim, Y., Kim, C., Lee, D., Lee, H., & Andrada, 2019; Winter et al., 2019). These become self-financing mechanisms for protected area operations (Eagles et al., 2002).

In addition to these benefits that tourism has for PAs, tourism, when it is nature-based, promotes aesthetic, spiritual, and other values related to well-being (Zhang et al., 2022; Yergeau, 2020). Tourism is argued to improve cross-cultural understanding as it leads local people to learn languages and cultures of foreign tourists and vice versa (Hunt, 2022). Lastly, tourism in natural and cultural settings such as PAs encourages local people to value their culture through activities such as the designing and development of crafts and arts, the practice of ritual, rites, dances, and storytelling for tourists while strengthening the practices of environmental protection (Adom, Nyadu-Addo, & Kquofi, 2021; Eagle et al., 2002). Bushell et al. (2007) classified these benefits broadly into three types namely social, economic and environmental benefits for all concerned.

However, tourism does not always provide only benefits to natural areas. Awareness is raised by several researchers that human activity in PAs can also contribute to: the degradation of PAs (Bhammar et al., 2021); to the deterioration of cultural biodiversity and ecosystem resources (Bushell

et al., 2007); and can negatively impact on local communities (Strba, Kolackovska, Kudelas, Krsak, & Sidor, 2020). Therefore, the practice of *sustainable tourism* has been advocated to mitigate these impacts.

SUSTAINABLE TOURISM

Sustainable tourism is a management concept that aligns tourism with sustainable development often allied to the concept of green tourism (Streimikiene et al., 2021). The concept emerged in response to the negative impact of tourism activities on the natural and cultural resources on which tourism depends (Guo et al., 2019). Sustainable tourism was first introduced by the World Tourism Organisation (WTO) in 1993, but since then, it has become increasingly dominant in the tourism industry as of great value for the sustainability of a tourism product (Guo et al., 2019;). Sustainable tourism is an agenda for tourism sustainable development that pays attention to the social economy, the use of valuable input resources and the effect of tourism on the environment (Rasoolimanesh, Ramakrishna, Hall, Esfandiar, & Seyfi, 2020; Hall, 2021). In other words, sustainable tourism is a concept that unifies tourism and resources (natural and cultural) and the environment.

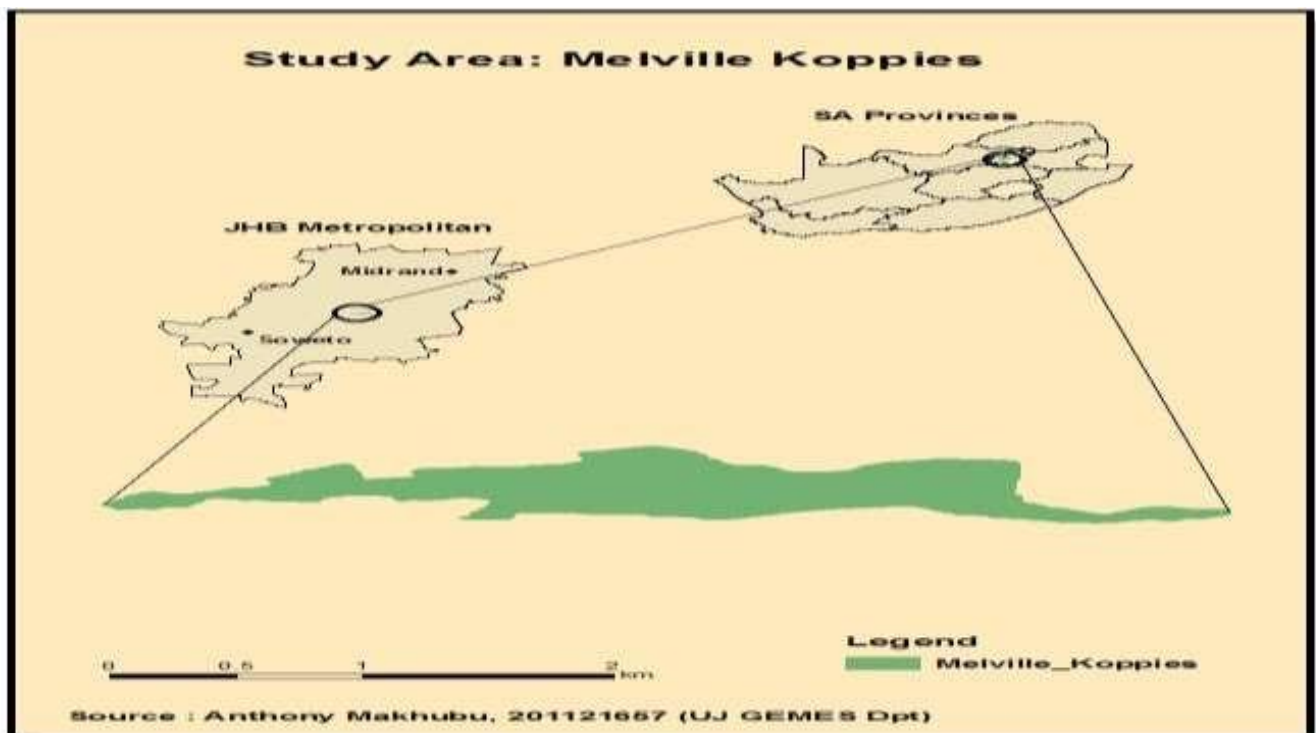
METHODOLOGY

Study area

The study area for this research was the MK nature reserve. It is a natural biodiversity and cultural heritage asset in the middle of the metropolis of Johannesburg, South Africa also being classified as a World Heritage site due to its major historical significance once inhabited by

Stone Age and Iron Age man (Knight, da Gloria & Bourotte, 2019). Being at the same time a natural and a cultural heritage site, gives MK the potential to offer both nature-based tourism and cultural heritage tourism, which are both part of ecotourism. The MK is made up of three geographic sections namely: the first, 60 hectares of nature reserve; the second a further open area of 100 hectares to the west known as Westdene Ridge; and the third, another 10 hectare section known as the Louw Geldenhuys. Figure 1 is a map that locates the MK in Johannesburg, and further in South Africa.

Figure 1: The Melville Koppies Nature Reserve Map.



Source: Makhubu, 2011

METHODOLOGY

This study is qualitative requiring participants to give their opinions and experiences on the importance and the contribution that the MK provides to the city of Johannesburg, its people and visitors. This was done by conducting open ended, semi structured interviews in which primary data were collected in the MK over a period of one day while the researcher was participating in a tour within the site. The researcher contacted one of the members of the managerial committee via the MK website and received permission to collect the data by approaching tour visitors. There was an agreement between the researcher and the MK management body to meet up on the day of the tour. The approval for data collection was explained to visitors by the MK tour management team before the tour started and that they could opt out at any point, opt not to be interviewed, and if interviewed their anonymity would be assured in the reporting. Semi structured interviews are a frequent data collection technique used in qualitative studies (Bearman, 2019). A semi structure interview is referred to as a question guide being drawn up from literature reviewed and is typically focused on the main topic that provides a general pattern (Ruslin, Mashuri, Rasak, Alhabsyi, & Syam, 2022). The questionnaire was based on open-ended questions related to this study. Interviews were held with 10 willing visitors on the tour who signed their agreement to participate and 2 members of the MK management committee present that day on the site making a sample size of 12 participants. There were 19 visitors for the tour that day, but only 10 of them agreed to be interviewed. Amongst the visitors who participated in this study, four were females and six were males while the participants from the management committee were composed of one female and one male. According to Guest, Namey and Chen (2020), a sample size of 12 participants has previously been able to give 92% of the relevant information. But a qualitative study is not only about the sample size but should also be determined by the saturation of data (Hennink & Kaiser, 2022). In this study, data saturation occurred when redundancy of information began at 10 interviews. The 12 participants were conveniently selected as they were accessible by being on the site of the MK for a tour while the researcher also had the opportunity to tour with them. Convenience sampling is a type of sampling in which participants are conveniently selected based on their accessibility (Bhardwaj, 2019). Before the interviews started, the process of data collection was explained to the participants. Permission to audio record the interview on the researcher's cellphone was asked of each participant. The recorded interviews were later transcribed verbatim to words by the researcher. A thematic analysis technique was used to interpret the obtained data. This is a popular analysis technique in qualitative data analysis as it facilitates the validation of theoretical issues integral to answering the research questions (Mayring, 2019).

FINDINGS

The findings confirm that the MK brings a positive tourism contribution to the city of Johannesburg in its role as a PA. Participant 1 (a member of the MK management committee) stated that the MK reserve is a site that conserves biotic features such as the fauna (small mammals, reptiles and birds) and the flora that are considered as a treat to the Johannesburg city residents to view within a city. This participant stated the reserve helps to conserve abiotic features such as metamorphic and sedimentary rocks that are important in understanding the Johannesburg soil formation. Additionally, she perceived the reserve as a site of conservation of historical and cultural assets such as the habitats of the Iron and Stone Age man, and cultural tools such as an Iron Age furnace and other tools that provide an insight to the Khoisan people practices. Participants (3 to 12 were MK visitors on the MK tour of which 8 were residents of the local community and 2 were international visitors) all perceived MK as a site for relaxation, leisure hiking and learning. Participant 1 said that she came to guide the tour to provide education about the site. She stated that MK also provides a platform for current research. According to her, a great number of research studies have taken place in the MK since the early 1900s continuing to the current day. Topics of research are about geology, geography, archaeology, local history, flora, fauna and now tourism (this paper). Participant 3 who was a botanist on the tour came to the MK both for relaxation but also for a study related to the botany of the site. Participant 1 added that the MK is used extensively by tertiary institutions such as Wits University and the University of Johannesburg for fieldwork and research. According to Participant 2, the second member of the MK management committee, the central part of the MK is safe for single walkers as there are security guards who invigilate the area providing a calm ambiance for researchers doing field work. Participant 1 added that the sponsor institutions for the MK area are the Johannesburg City Council and university institutions as the MK is a study area for researchers

in the preservation and protection of the site. Participant 2 added that high schools use the MK for hands-on biology courses. The topics covered for school children include: Human evolution (for senior pupils), Stone and Iron Age man, the Geldenhuys family, (one-time owners of the MK) and their connection with modern history relating to the early years of Johannesburg, the Anglo Boer War and gold, the geology of the MK, conservation and alien vegetation control, the tourism potential of an urban nature reserve in Johannesburg, indigenous flora of the highveld including trees, grasses and flowers. Specialist groups such as clubs who study birds, trees, wildlife, spiders, geology, archaeology, butterflies, and insects also use the MK for special outings. Hiking clubs hike across all three sections. Participants 8, 10 and 12 indicated that they belonged to one of these clubs that use the MK to hike regularly. The findings further revealed that the MK is also a site of current worship. Participant 7 stated that the African Independent Churches go to MK to pray and undertake religious practices. Participant 2 is also a member of this church and revealed that the MK is a sacred site for their church as it is the land of their ancestors where traditional practices occurred. The same participant said that sometimes members from other parishes of the city, the country and the southern African sub-region, join them at MK. Participant 1 added that the members of this church are amongst the management body of the MK site, and help to maintain the reserve. Participants 3 to 12 all said that they were on the site for the purpose of relaxing especially to learn about a cultural heritage site. Participants 4 and 5 were visitors from Europe stating they came to walk in a different setting from the city appreciating the unspoiled nature and history of MK. Participant 10 also indicated that it is not her first time at MK and that sometimes she brings her children and dog to relax.

INTERPRETATION

The findings confirmed the argument that nature reserves, although being primarily sites of conservation, provide a site, as an attraction for the consumption of a leisure and learning experience as well as enjoyment from their visitors. It was shown in this study that the MK provides ecological, social and aesthetical benefits to the people of Johannesburg. Being a site of conservation, the MK is symbol of the practice of sustainable tourism as it is an additional site for the practice of nature based and cultural heritage tourism. Being particularly a cultural heritage site, the MK also provides cultural heritage tourism opportunities which adds to the diversity of the tourism package that the city of Johannesburg offers as a destination. This is in line with what was said in the literature review, that protected areas such as nature reserves are primarily established for the preservation of biophysical process or conditions (Spenceley et al., 2021) or cultural heritage such as a community's cultural tradition (Gordon, 2019; Taff et al., 2019) but often become valuable tourist attractions in their own right. The preservation of cultural MK assets such as the Iron Age furnace gives a sense of belonging to the traditional people of Johannesburg and provide them with insight on where they come from. This is considered as a great asset for cultural heritage tourism. Bowitz and Ibenholt (2009) declare that cultural heritage such as found in natural resources protecting their man-made items and other tangible artefacts as well as intangible assets such as ensuring remembrance of customs and ancestral practices, helps a community define its current and past identities for itself as well as others. It has a tremendous power to elicit a sense of belonging in a community. Being a worshiping area, the MK offers a platform for religious tourism as some people move from cities, regions or sub-regions to attend MK church services. This also confirms the argument of Taff et al. (2019) who stipulates that protected areas are often areas of spiritual values. The study also revealed in the findings that the MK is used for the purpose of education. As indicated in the literature review that protected areas were often for the purpose of conservation education (Quesada-Rodriguez et al., 2021; Zhang et al., 2020). The field of education covered in MK includes geology, geography, botany, historical studies supporting the global initiative that education is the goal number 4 of the Sustainable Development Goals (SDGs), therefore the MK plays its role in achieving this goal. Lastly, the findings reveal that the MK is a site for relaxation and sport in terms of hiking. Sport is an important aspect that contributes to positive mental and physical health of city populations (Winter et al., 2019). Therefore, it can be said that nature-based tourism also contributes in achieving SDG goal number 3 (good health and well-being). This confirms the argument that nature-based tourism contributes to the improvement of the quality of life of people as it is believed that it promotes values related to well-being (Zhang et al., 2022; Yergeau, 2020). Due to the small sample size used in this study, the outcome cannot be generalised as it is not the reflection of the Johannesburg's population. However, study is deemed exploratory as little research has been done on the tourism

impact of the MK. It therefore opens up opportunities for further tourism studies to be conducted on the MK. For example, this study did not identify the economic impact of the MK.

CONCLUSION

This qualitative study aimed at analyzing the importance that a nature-based tourism/sustainable tourism offering such as MK can provide within urban settlements. The case of the MK serves as an example to illustrate this contribution that this form of tourism can provide to Johannesburg and its population. The findings confirm that nature-based tourism can provide a range of social, environmental benefits to urban space while other research has indeed mentioned the economic benefits that this form of tourism brings. The implications for the management of nature-based areas is that finding ways that tourism can utilize the PA area's unique attributes can assure long term viability of such an area.

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Vacation intentions of visitors to a branded resort group amidst COVID-19

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ABSTRACT

COVID-19 lockdown disrupted travel plans and visitors were faced with decisions around existing bookings. The unprecedented crisis created an urgent need to regenerate and predict demand. This article investigates vacation intentions among branded resort group visitors. It firstly describes booking behaviour at the onset of COVID-19 lockdown restrictions (n=2287), indicating a trend toward postponement rather than cancellations. TwoStep cluster analysis is used to segment visitors based on brand loyalty, vacation dedication, corporate social responsibility (CSR) initiatives, trip characteristics and demographics (n=3053). Four distinct visitors groups were identified, with trip characteristics and demographics (gender, family status and age) being most important. Loyalty toward the brand, the need to take a vacation and preference for resorts all played a role in driving future intentions. Dedicated upcoming families and resort lovers were likely to revisit the specific brand as soon as possible, highlighting the importance of strong brand relationships to regenerate demand.

Keywords: COVID-19, visitor intention, brand loyalty, corporate social responsibility, vacation dedication, resorts, cluster analysis

INTRODUCTION

The COVID-19 pandemic has brought a cease to travel, and hospitality businesses are faced with the short-term challenge of regenerating demand. The ability to predict demand post-crisis is essential for recovery, however the face of tourism has however changed permanently, and familiar markets no longer exist or are set to display new trends (Kostynets, Iu and Olshanska, 2021). As such, studying tourist behaviour from a marketing perspective remains an important avenue for further research. This includes investigating pent-up demand, travel patterns, decision-making and emerging psychographic drivers of behaviour such as risk perceptions, reliability, managing uncertainty in travel planning, and preferences for certain destinations (Assaf, Kock and Tsionas, 2021; Zopiat, Pericleous and Theofanous, 2021). Research has already established distinct differences in the risk perceptions and associated travel behaviour (Matiza & Kruger, 2021). As businesses labour to retain customers and harness pent-up demand in the rapidly changing market, relationship marketing is set to take on new meaning. Themes of risk perceptions and reliability will arguably gain prominence in the effort to create new and maintain continued relationships with visitors.

Brand loyalty is a well-established construct in destination marketing literature and links to attachment toward and satisfaction with service offerings (Ahn and Back, 2018; Yuksel, Yuksel and Bilim, 2010). Commitment is linked to relationships and consists of affective, cognitive, and conative components (Arriaga and Agnew 2001), aligning with the known brand loyalty dimension (Evanschitzky, Iyer, Plassmann, Niessing and Meffert, 2006). In a crisis where visitors have been withheld from vacationing, behavioural loyalty is of importance to gauge not only repetition of past

behaviour (continuance loyalty), but also a long-term orientation (cognitive loyalty) (Arriaga and Agnew 2001) beyond the existing crisis. Continuance commitment is an important driver of behavioural loyalty (Evanschitzky et al, 2006) and this motivational state may override cognitive and affective commitment (Arriaga and Agnew, 2001). In a crisis context, a visitor may display such commitment because switching costs are high (for example cancellation costs, waiting time) or alternatives are scarce (due to the crisis) (after Evanschitzky et al., 2006). The fact that there is an existing relationship, and the product is familiar (benefits known), may provide comfort in a time of uncertainty and strengthen commitment (after Alam, 2011). This familiarity can contribute to restoring visitors' confidence as key to post-COVID recovery (Zheng, Luo and Ritchie, 2021).

Crisis management is key to survival in the tourism industry given its vulnerability and should be approached from a strategic perspective. This includes undertaking corporate social responsibility (CSR) initiatives. During COVID-19, hospitality businesses have undertaken various consumer-focused initiatives ranging from arrangements around bookings to information on health protocol (Gürlek and Kılıç, 2021). These efforts aim to strengthen relationships by building trust in the brand as it shows the ability to meet consumers' needs. It also has potential to decrease travellers' hesitance and encourage travel intentions (Han, Lee, Kim and Ryu, 2020). The question asked is whether visitors' satisfaction with these initiatives is tied to their loyalty and revisit intention amidst a crisis. There is still a dearth in literature on this topic, specifically also in the COVID-19 context (Gürlek and Kılıç, 2021).

While businesses may implement new marketing strategies and undertake initiatives to regenerate demand, the psyche of tourists has shifted. The pandemic has given rise to understanding travel as a fundamental need (Assaf et al., 2021). Travel has proven positive effects on individual well-being, and with COVID-related restrictions this is set to have severe psychological effects on individuals. It is argued that this need to travel and experience improved well-being may be a key contributor to regenerate demand. To explore this theme, the concept of '*vacation dedication*' can be considered. This dedication is "a strong preference for and active choice of vacations over other possible activities" (Ring, Yanamndram, Gretzel and Dolnicar, 2021: 1732). According to Ring et al.'s (2021) conceptualisation, dedication toward vacationing can be driven by collectively considering three components: commitment, involvement, and identity. All three of these contain elements of attachment namely importance, relevance, value, and necessity, along with emotional discomfort in its absence (Arriaga and Agnes, 2001; Evanschitzky et al., 2006). In the current study it is argued that these perceptions can be expressed through a sense of 'urgency' within a crisis context (the 'fundamental need' as indicated by Assaf et al., 2021). If viewed from a crisis context, how does a tourist's general predisposition toward vacationing play a role where it is perceived as a matter of 'urgency'? Furthermore, is this urgency greater toward planning for a vacation per se (immediate priority); toward vacationing at a specific destination (brand) (possibly due to the reduced risk perceptions); toward a specific type of vacation perceived as most suitable; or any available destination for the sake of vacationing.

The aim of this research is to investigate both the displayed and intended visitation behaviour of resort visitors within the context of the COVID-19 pandemic.

Research objective 1 is to describe the booking behaviour and intentions of visitors that had bookings at the start of lockdown.

Research objective 2 is to determine the factors that drive future behavioural intentions among distinct visitor segments.

The article contributes to our understanding of visitor behaviour within a crisis context to inform post-crisis demand recovery. Due to the unprecedented market changes brought about by COVID-19, our existing understanding of visitor behaviour has been challenged and research is needed to explore new emerging themes. The article does so by combining known and newly conceptualised drivers of behavioural intentions.

METHODS

CASE STUDY

Resorts offer unique and varied sensory experiences and as such build unique brand relationships as lifestyle destinations (Ahn and & Back, 2018). Resorts are regarded as a possible avenue for post-COVID recovery due to its connection with wellbeing (Navarrete and Shaw, 2020). As part of the hospitality sector, resorts must manage haphazard reservations brought about by changes to COVID-19 lockdown decisions and survive until periods when pent-up demand realizes. Trends indicate that visitors have been less likely to completely cancel their room reservations, but rather opt to postpone either to the last part of 2020 or to 2021 or for the fourth quarter of 2020. Resort hotels have been indicated as a positive situation due to the growth in domestic tourism (Kostynets et al., 2021). One of the largest branded resort groups in South Africa with seven properties across four provinces (as stated on the RG website), was used as case study (hereafter referred to as RG as it was agreed that publication emanating from the study would be anonymous). The researcher approached management of the group to request collaboration on the research project. The country went into full lockdown on 26 March 2020, in the middle of the first annual school break (23 to 30 March). At the time of the second break mid-June to 6 July, an adjusted Level 3 applied which meant no interprovincial leisure travel. Accommodation establishments were only allowed to take in leisure guests from 18 August. During the third school break (21 to 28 September) Level 1 applied, allowing interprovincial leisure travel and resort occupancy at 50% capacity. This continued up until 29 December when an adjusted Level 3 was again announced (during the main summer break); with closing of all public beaches in 'hot spots' and recreational facilities nationwide. Resorts were allowed to operate at full capacity while maintaining protocol and closing off certain areas (South African Government, 2022). RG undertook several crisis response initiatives including credit for existing bookings; and postponement of bookings up until 2021 at 2020 prices. In cases where visitors chose to cancel bookings, the normal cancellation policy applied (personal communication for RG marketing manager). The researcher also observed communication on the RG's website, official social media platforms and newsletters regarding developments and new safety measures implemented at the resorts.

DATA COLLECTION AND SAMPLING

Ethical approval for the study was given by the Ethics Committee of the academic institution (protocol nr EMS039/20). Data was collected through an online survey hosted on Qualtrics, from 22 September to 31 October 2020. The target population was individuals above the age of 18 that had visited an RG resort in the last three years, excluding business travellers and tour operators. Non-probability available cases sampling was used, and the RG marketing team posted an invitation to the online survey in the electronic newsletter. Participants gave consent to participate in the study by indicating agreement with the study conditions at the start of the survey.

A total sample of 6467 responses was achieved. Of this total, 2287 visitors had bookings at the onset of lockdown (March 2020). Respondents' booking behaviour was observed through descriptive statistics to identify possible trends (objective 1 of the article). Furthermore, a total of 3053 visitors were aware of the CSR initiatives at the time of the survey (September 2020). They were included in a cluster analysis based on brand loyalty, satisfaction with CSR, vacation dedication, trip characteristics and demographic to identify visitors with positive future intentions toward RG (objective 2 of the article).

Brand loyalty and post-lockdown vacation intentions were measured using a slider scale (1 – 100), reliably allowing detection of subtle individual differences in response patterns (Imbault, Shore and

Kuperman, 2018). Brand loyalty (cognitive and conative) was measured using seven items adapted from Yuksel et al. (2010). Four items measured intended post-lockdown vacation intentions. These were phrased to include the element of urgency: a) *Plan to take a holiday at an RG resort again as soon as possible*; b) *Plan to take a holiday at any destination that has availability as soon as possible (not necessarily RG)*; c) *Planning my next holiday will be high up on the agenda*; and d) *A resort holiday is the only type of holiday that I will undertake or consider to really rest out after all the disruption*. These items were not designed to probe theorized components of each construct, but rather phrased to capture the expression of dedication (after Arriaga and Agnew, 2001; Dolnicar, 2020). Satisfaction with CSR was measured with a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree) using six items based on existing initiatives. Demographics (gender, age, marital status, children) were also considered as they play a significant role in explaining travel behaviour (Pearce and Lee, 2005). Lastly, frequency of visit, 'visiting since' and membership of RG were included as aspects of continuance and cognitive commitment (Arriaga and Agnew, 2001; Evanschitzky et al., 2006).

DATA ANALYSIS

For objective 1, basic descriptive statistics (frequencies, means) probed the booking behaviour and intentions of all visitors that had bookings at the start of lockdown. For objective 2, Exploratory Factor Analysis (EFA) was firstly used to determine dimensionality of the loyalty, satisfaction, and vacation intention scales. Kaiser-Meyer-Olkin measure of sampling adequacy (recommended value of > 0.7), and Bartlett's test of sphericity ($p < 0.05$) confirmed factorability of the data. Factors with Eigenvalues ≥ 1 were retained. Though standardised loadings are ideally > 0.70 , values above 0.40 were considered (Nusair & Hua, 2010). Internal consistency for each of the scales was examined using Cronbach's alpha with a reliability coefficient above 0.6 considered acceptable (Kline, 2011). For further analyses, the composite scores for loyalty and satisfaction were used. The four items measuring vacation intentions were used separately to test dedication toward specific aspects. TwoStep Cluster analysis was used to profile visitors and is a well-established technique in tourism studies to define segments based on psychographics, behavioural and/or socio-demographic variables (Bigné, Gnoth and Andreu, 2008; Ernst and Dolnicar, 2018). TwoStep Clustering, as opposed to other classical methods, was used as it allows for a combination of data types and finds the optimal number of clusters. Silhouette measure of cohesion and separation indicated cluster quality. The predictor importance measured relative contribution of the various factors toward the formation of the clusters, with a rating between 0.8 and 1.0 being highly important and below 0.0 – 0.2 less important (Tkaczynski, Rundle-Thiele and Prebensen, 2015). The clusters were validated and tested for appropriateness through discriminant analysis, one-way ANOVA (with Tukey post-hoc) and Pearson Chi-square (with Cramer's V ϕ_c for effect size) (Tkaczynski, 2017). Lastly, one-way ANOVA tested the relationships between the categorical data (clusters) versus revisit intentions (scale data) (RG versus any other destination). Wilks' lambda test statistic indicated overall significance ($p < 0.05$), with Tukey post hoc test identifying differences between categories (Pallant, 2013).

RESULTS

OBJECTIVE 1: BOOKING BEHAVIOUR OF THE TOTAL SAMPLE

The total sample consisted of 6467 visitors. Thirty-five percent (2287) respondents indicated that they had an existing 2020 booking at one of the resorts before the onset of lockdown in March. Those that did not, were asked whether they still had intention to book at a resort during 2020 and for when (question asked in September, thus indicating potential demand for the remainder of the year given that resorts were only operational from 18 August). These results are displayed in Figures 1 and 2.

Figure 1. Booking intentions for the remainder of 2020 (by September)

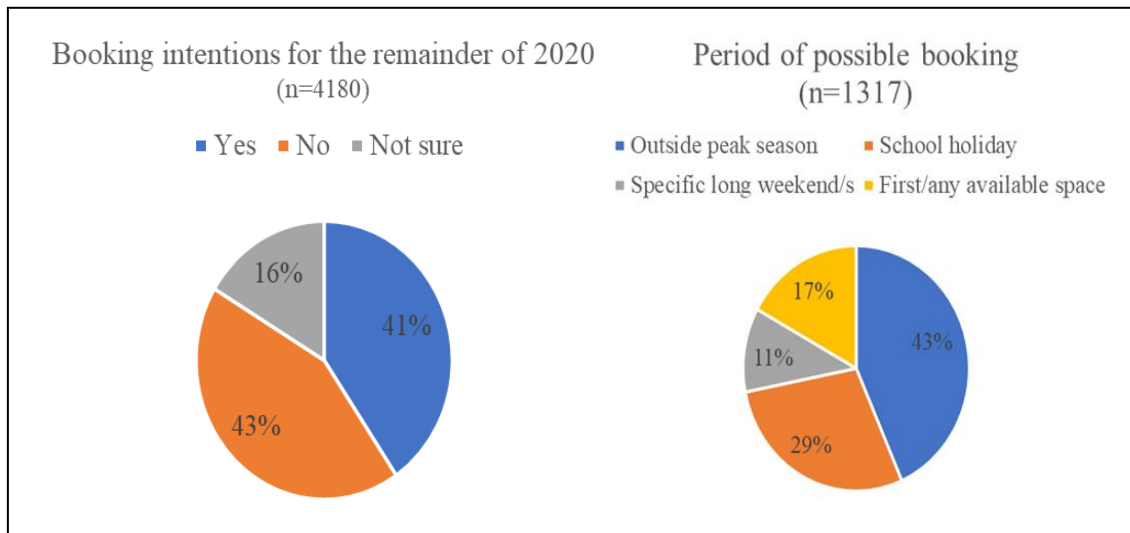
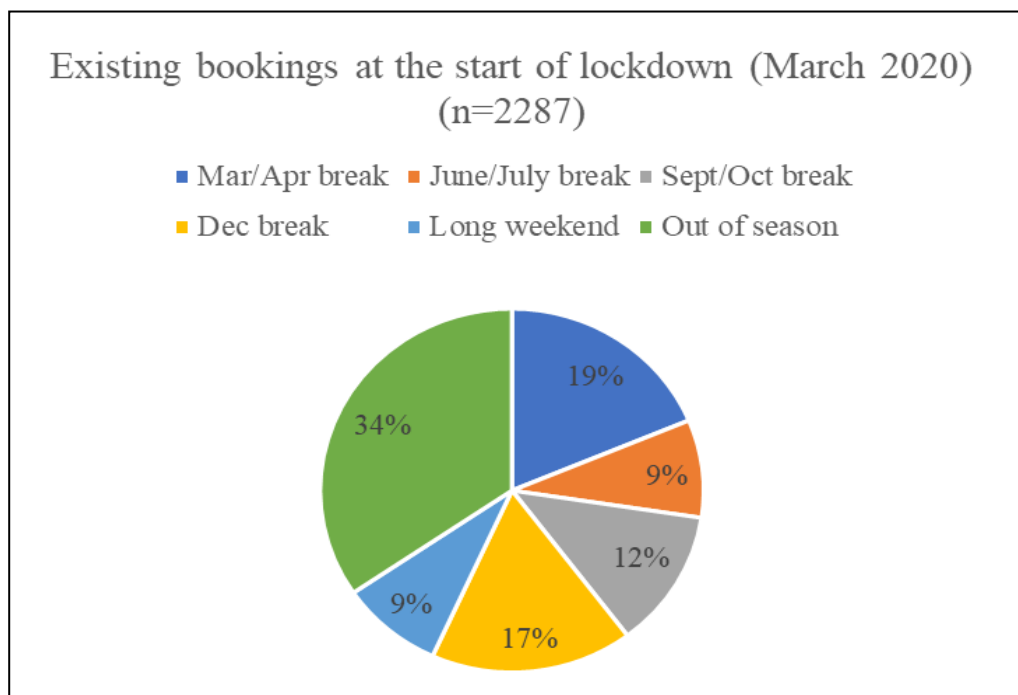


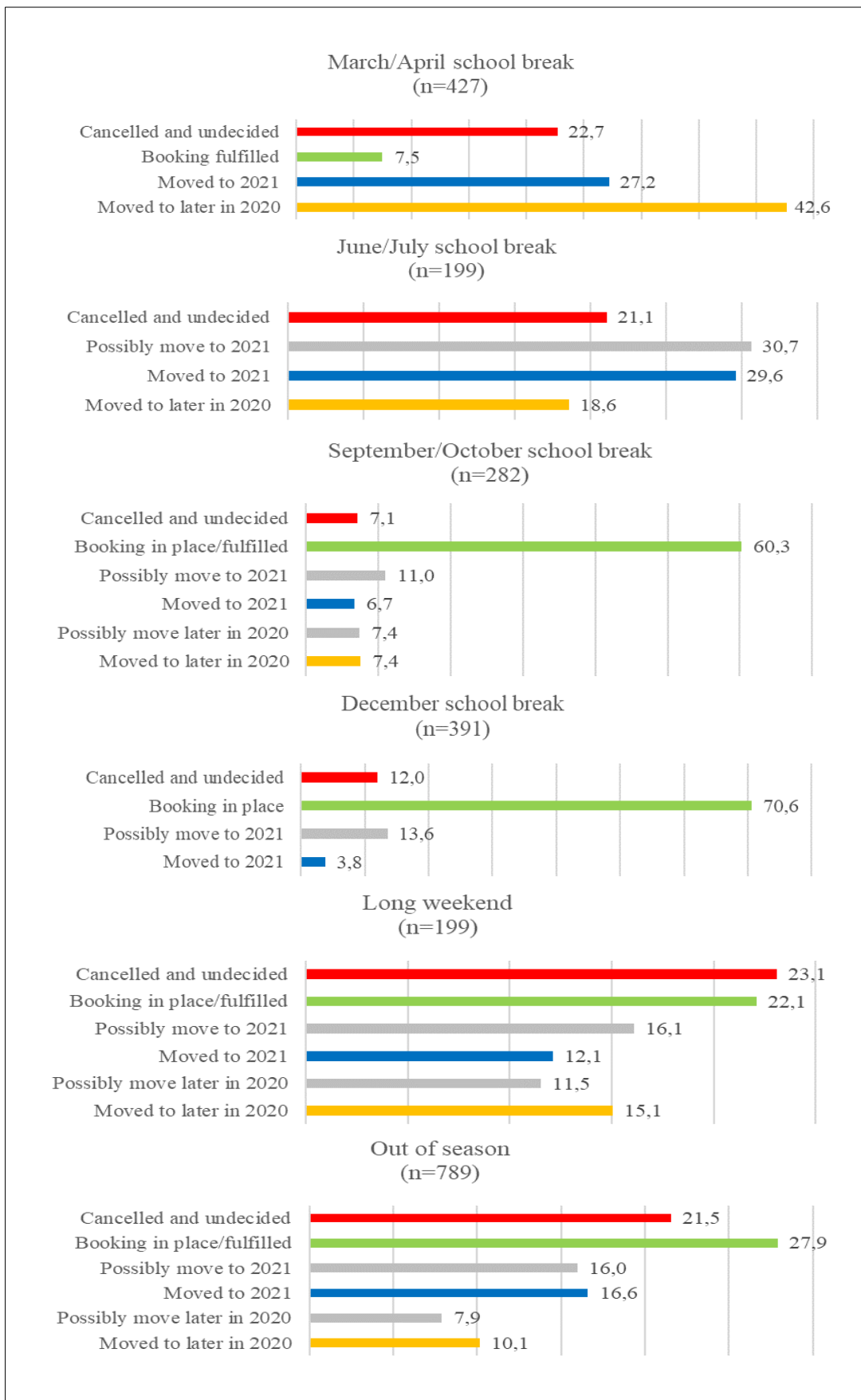
Figure 2. Existing bookings at the start of lockdown (March 2020)



Respondents that had bookings in place indicated the decisions they made around their bookings across these time periods (Figure 3). Red bars indicate the least desirable behaviour where visitors cancelled or did not commit to any further decisions. Yellow indicates actual bookings for 2020, with blue for 2021. Grey bars indicate possible bookings and allow an indication of when pent-up demand could be expected (as opposed to the red bars). For bookings at the onset of lockdown (March/April), some visitors were able to fulfil bookings as they were still in the resorts or departing on the day/s before lockdown. The remaining days of bookings that had to be shortened, were accounted as credit toward a future visit; accept if an individual decided to cancel the entire booking. In such cases, the normal cancellation policy applied. The same process was followed for June/July where the country was still in lockdown and bookings that had been moved from April to June/July needed to be postponed again. Amidst the worst part of lockdown, individuals displayed risk aversion, not only toward financial risk due to possible repeated cancellations, but also health risks as infection

numbers escalated (Matiza and Kruger, 2021). For this group, demand mostly moved over to 2021. Like what has been found in other studies (Kostynets et al., 2021), September/October and December bookings and intentions were much more optimistic given eased restrictions, along with pent-up demand from the previous two periods (yellow in March/April and June/July). The long weekend market had similar numbers between cancellations, bookings fulfilled/in place, future bookings already made and intended bookings. Majority of the out of season market was able to maintain their bookings, possibly due to the flexibility in decision-making (not bound to school breaks / national holidays). It is predicted that short notice decision-making will be at the order of the day post-covid (Kostynets et al., 2021); indicating the importance of this market to maintain demand throughout the year given unexpected disruptions.

Figure 3. Decision regarding existing bookings



OBJECTIVE 2: FUTURE INTENTIONS OF DIFFERENT VISITOR SEGMENTS

Of the total sample, 3053 visitors were aware of the CSR initiatives at the time of the survey (September 2020) (refer to Table 1). Majority were female (56%), married (83.6%) and those who always visited with children (55.9%). Majority were frequent visitors (once a year), and those who have been visiting since 2000 (23.4%). Majority did not have bookings at the onset of lockdown in March 2020 (63.4%). Forty-six percent (46.4%) of these indicated that they still intended to book for 2020, followed by no (38.4%) and not sure (15.2%).

Table 1. Sample profile

VARIABLE	CATEGORY	%*
Age: average – 51; min = 19, max = 88 (Std.Dev. 12.9)		
Gender** (n=3026)	Female	56.0
	Male	43.8
	Prefer not to say	.20
Marital status (n=3024)	Married	83.6
	Divorced	6.2
	Single	6.0
	Widowed	2.9
	Prefer not to say	1.3
Had a booking for 2020 (n=3032)	No	63.4
	Yes	36.6
Still consider booking for 2020 (n=1913)	Yes	46.4
	No	38.4
	Not sure	15.2
Visiting since when (n=3025)	Since 2000	23.4
	Since 2010	17.5
	Since 1990	17.1
	Since 2015	14.1
	1970 - 1990	11.1
	Since 2018	9.4
	Only once	4.3
	Since 1970	3.1
Frequency of visit (n=3021)	Once a year	66.7
	Every two to three years	21.0
	Not that often	9.0
	Once a month	3.3

Visit with children (n=2949)	Yes, always	55.9
	Yes, sometimes	29.2
	Not applicable	7.4
	No, not anymore	5.5
	No, never	2.0

*Note: values in descending order

**The category 'Other' was added, but no respondents selected this option

Exploratory factor analysis for brand loyalty, satisfaction with CSR and vacation intentions

Brand loyalty and post-lockdown vacation intentions were measured using a slider scale (1 – 100).

Satisfaction with CSR was measured with a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). Table 2 presents the results for the three scales.

Table 2. EFAs for scale variables

	MEAN	STD. DEV	FACTOR LOADING
Brand loyalty (<i>KMO</i> =0.911; <i>Bartlett's test of sphericity</i> $p<0.001$). <i>Eigenvalue</i> = 5.225; % of Variance=70.45%).			
Will recommend friends and family to visit an RG resort	88.82	18.069	.823
Will always speak positively about RG toward other people	88.58	17.828	.794
If possible, will continue to have holidays here	86.05	20.521	.841
Offers superior service quality in comparison to other holiday destinations	76.29	23.957	.863
First choice holiday destination	74.80	27.871	.855
Has no comparison when it comes to quality	73.30	26.440	.849
Offers more benefits than any other holiday destination	73.24	25.880	.848
<i>Cronbach Alpha</i>			.939
<i>Composite reliability</i>			.943
<i>Average variance explained</i>			.704
Satisfaction with CSR initiatives (<i>KMO</i> =0.864; <i>Bartlett's test of sphericity</i> $p<0.001$). <i>Eigenvalue</i> = 3.490; % of Variance=50.43%)			
It is encouraging that 2020 prices will be maintained for bookings that are carried over to 2021 (in the same period)	4.31	.797	.666
Satisfied that bookings can be moved to a future date	4.27	.800	.687
The way the RG is dealing with the current crisis, is professional and contributes to the organisation's image	4.16	.812	.816
Satisfied with communication regarding bookings	4.12	.894	.772
Official communication regarding the current situation in the resorts is sufficient	4.00	.890	.769

It is reasonable that the normal cancellation policy is maintained under current circumstances	3.62	1.16	.507
<i>Cronbach Alpha</i>			.841
<i>Composite reliability</i>			.857
<i>Average variance explained</i>			.504
Vacation intentions (KMO=0.686; Bartlett's test of sphericity $p<0.001$). Eigenvalue= 2.241; % of Variance=44.94%)			
Planning my next holiday will be high up on the agenda	83.15	22.94	.726
I plan to take a holiday at an RG resort again as soon as possible	80.15	25.77	.852
A resort holiday is the only type of holiday that I will undertake or consider to really rest out after all the disruption	70.09	30.02	.682
I plan to take a holiday at any destination that has availability as soon as possible (not necessarily RG)	66.50	31.25	-
<i>Cronbach Alpha*</i>			.789
<i>Composite reliability</i>			.799
<i>Average variance explained</i>			.573

N=3035

Extraction method: Principal Axis Factoring

*Values of Cronbach, CR and AVE calculated after removal of item 2 (negative intention toward RG)

All but one of the scales produced single factors with loadings above the value of 0.50 (Nusair and Hua, 2010). For the Vacation Intention scale, the item "I plan to take a holiday at any destination that has availability as soon as possible (not necessarily RG)" had the lowest mean score and did not load onto the factor and was removed. The Satisfaction scale had one item that loaded low, yet above the threshold ("Reasonable that the normal cancellation policy is maintained" at loading = 0.507). This item also had the lowest mean score (respondents less satisfied with this initiative). The loading was still above the threshold and retained for further analysis. All the scales indicated reliability with Cronbach Alphas above the acceptable level at > 0.70 (Kline, 2011). Composite reliability values for all three scales were good (between 0.70 - 0.90) and Average variance explained exceeded 0.50 (Hair, Hult, Ringle and Sarstedt, 2014).

Cluster analysis

Though three items of vacation intention formed a single factor, all four items were used separately to test dedication toward specific aspects. Loyalty toward RG, dedication toward planning the next vacation, and toward resorts as the most suitable, were included along with trip characteristics and demographics for the analysis. The two vacation intentions to visit RG specifically versus any other resort were used as dependent variables, comparing differences between the clusters. TwoStep Cluster Analysis mechanically selects the number of clusters and suitability was based on the best combination of (a) low (but not necessarily the lowest) Bayesian Information Criterion (BIC), (b) high ratio of distance measures, (c) high ratio of BIC changes, and (d) potentially meaningful explanation. Using the rules as specified, a three-cluster solution seemed optimal (BIC = 40476.372; ratio of distance measures = 1.357; BIC change = 0.866). Silhouette measure of cohesion and separation indicated cluster quality at a value of 0.1 (above the 0.0 threshold). The predictor importance measured relative contribution of the various factors, with a rating between 0.8 and 1.0 being highly important and below 0.0 – 0.2 less important (Tkaczynski et al., 2015). The three-cluster solution

was validated and tested for appropriateness through discriminant analysis, one-way ANOVA (with Tukey post-hoc) and Pearson Chi-square (with Cramer's $V \phi_c$ for effect size). For the discriminant analysis, categorical variables were recoded into dummy variables. The results indicated a three-factor solution with a significant Wilk's Lamda value (0.562; $p < 0.001$) and classified 95,2% of the values correctly. Table 3 presents the results.

Table 3. Clusters

	PREDICTOR IMPORTANCE	CLUSTERS				SIGNIFICANCE TESTS
SIZE OF CLUSTERS		1 (803)	2 (752)	3 (703)	4 (648)	
CLUSTER NAMES		Regular Members	Infrequent Visitors	Dedicated Upcoming Families	Dedicated Resort Lovers	
Frequency of visit	1.00	Once a year (100%)	Every two/three years (56.8%)	Once a year (80.8%)	Once a year (85.5%)	$\chi^2=2085.410^*$ $\phi_c=.489$
Gender	1.00	Male (100%)	Male (56.5%)	Female (100%)	Female (92.0%)	(Likelihood-ratio) 2634.658* $\phi_c=.586$
Visit with children	0.64	Yes, always (47.6%)	Yes, always (47.2%)	Yes, always (100%)	Yes, sometimes (40.1%)	$\chi^2=957.566^*$ $\phi_c=.331$
Marital status	0.52	Married (94.4%)	Married (88.0%)	Married (100%)	Married (51.2%)	$\chi^2=786.528^*$ $\phi_c=.300$
Age	0.39	55.30	52.88	41.45	50.78	$F = 203.365^*$
Visiting since when	0.18	Since 2000 (23.0%)	Since 2000 (25.0%)	Since 2000 (25.9%)	Since 2000 (19.3%)	$\chi^2=319.772^*$ $\phi_c=.192$
Brand loyalty	0.16	79.85	71.54	84.84	85.48	$F=80.773^*$
Planning of next vacation is a high priority	0.10	84.82	74.56	86.16	87.41	$F=50.239^*$

Preference for resorts	0.08	69.06	60.95	74.25	76.14	$F=37.877^*$
RG membership	0.05	Yes (64.9%)	No (55.7%)	Yes (57.2%)	Yes (54.0%)	$\chi^2=68.188^*$ $\phi_c=.153$
Satisfaction with CSR	0.01	4.10	4.02	4.08	4.14	$F=3.977^{**}$

N=2906

* $p<.001$ ** $p<.01$

The most important elements in the formation of the clusters were related to behavioural loyalty and demographics. Firstly, frequency of visit and gender (both with a predictor importance of 1.0). This was followed by whether they travel with children (0.64), marital status (0.52) and age (0.39). Of lesser importance were since when they have visited (0.18). Of the psychographic variables, brand loyalty was most important (0.16), followed by importance of planning the next holiday (0.10). Of lesser importance was preference for resorts (0.08), RG membership (0.05) and lastly satisfaction with CSR (0.01). ANOVAs and Pearson Chi-square test results indicated that all the variables contributed to the differentiation in clusters.

Cluster 1 ('Regular Members') formed the largest cluster with majority of the respondents (27.6%). These individuals were all male, aged 55 (highest age group), the majority married, and always travelling with children. Majority were members of RG (greatest number of members of all clusters), all of them visited one a year, since 2000. *Cluster 2* ('Infrequent Visitors') was the second largest cluster with the majority being male (but most equal of all clusters), aged 53, married, and always travelling with children. Majority were not members of RG (least likely to be of all clusters), visited only every two/three years, since 2000. *Cluster 3* ('Dedicated Upcoming Families') were all females, aged 41 (lowest age group), all of them married, and always travelling with children. Majority were members of RG, visited one a year, since 2000. *Cluster 4* ('Dedicated Resort Lovers') were mostly female, aged 51, the majority married (but least of all clusters), and sometimes travelling with children (least of all clusters). Majority were members of RG, visited one a year, since 2000. Overall, Clusters 3 and 4 had significantly higher levels of brand loyalty, priority given to vacation planning and preference for resorts than Clusters 1 and 2. Cluster 2 had significantly lower levels compared to Clusters 1, 3 and 4. Notably, both Cluster 3 and 4 were predominantly female, while Clusters 1 and 2 were predominantly male. Gender was also the variable with the largest test statistic and effect size.

Revisit intentions of visitor segments

Two One-way ANOVAs tested the difference between the segments' intentions to revisit RG versus any other destination. The one-way ANOVAs were preferred over MANOVA given the low correlation (Pearson correlation; $r=.194$, $p<0.01$) between revisiting RG and revisiting any other destination (after Kline, 2016). There was a statistically significant difference between the clusters in the intentions to visit RG as soon as possible: $F(3, 2901) = 84.556$, $p<0.001$. Post-hoc comparisons (Tukey HSD) indicated that the mean scores for Dedicated Upcoming Families (C3) ($M = 86.19$, $SD = 20.998$) and Dedicated Resort Lovers (C4) ($M = 85.95$, $SD = 21.901$) did not differ from each other, but differed significantly from both Regular Members (C1) ($M = 81.00$, $SD = 24.337$) and Infrequent Visitors (C2) ($M = 68.11$, $SD = 30.532$). The latter group also differed significantly from Regular Members.

There was no statistically significant difference between the clusters in the intentions to visit any destination as soon as possible (not necessarily RG): $F(3, 2901) = 1.877$, $p<0.131$. Across the clusters, mean scores for this intention were lower [Regular Members (C1) ($M = 66.38$, $SD = 30.541$); Infrequent Visitors (C2) ($M = 64.17$, $SD = 31.119$); Dedicated Upcoming Families (C3) ($M = 67.37$, $SD = 31.753$); Dedicated Resort Lovers (C4) ($M = 67.72$, $SD = 31.875$)].

DISCUSSION AND RECOMMENDATIONS

This study set out to describe 1) the booking behaviour and 2) vacation intentions of visitors in a crisis context. Visitors were more likely to postpone, than cancel bookings (corroborating Kostynets et al., 2021). There is however also evidence of loss (cancellations) due to uncertainty. At the early onset and after repeated cancellation, visitors tended to move bookings further away (into 2021). This created pent-up demand, especially for popular holiday seasons linked to school breaks. In this instance it is important to accommodate visitors that had bookings during the previously lost opportunity. From the cluster analysis, these may be members of the Dedicated Upcoming Family market. They are very loyal and likely to fulfil bookings, but has limited flexibility around dates. This stands in contrast to out of season visitors who may be more flexible to spread demand; with out-of-

season possibly taken by more mature visitors (50+) who are less likely to travel without children. These may be members from the Dedicated Resort Lover and Regular Member clusters. Of these two, the former is the most loyal, dedicated to vacationing and with a preference for resorts.

The cluster formation was largely determined by frequency of visit as an element of conative loyalty, indicating the importance of continuance commitment in a crisis context as opposed to cognitive commitment reflected by the lower importance of history of visiting (since when) as well as resort membership. The Regular Members cluster had the greatest number of RG members. Despite these visitors' high dedication to planning their next holiday post-lockdown, they had lower levels of loyalty, preference for resorts as well as intention to revisit RG than the Dedicated Segments who had fewer RG members. This group may visit due to membership benefits and the culture of the organisation, and will not necessarily return urgently post-crisis if not incentivised through monetary benefits (e.g. discounts; preferential bookings). Monetary incentives would likely also be the only way to attract the irregular visitor segment who, given their overall lower levels across all variables, would be even more difficult to attract post-lockdown.

Equally important to frequency of visit was gender, followed by other demographics. This presents interesting avenues for future research to understand the lifestyle dimensions associated with resorts and how these play into a sense of urgency to revisit. In the study by Ring et al. (2021) normative commitment was expressed as a sense of obligation toward family to take a vacation. This could be a possible explanation toward the strong revisit intentions of the Dedicated Upcoming Families cluster. Though used separately in the cluster analysis, the three vacation intention statements formed one factor. It indicates the potential that these items may collectively represent 'vacation dedication' – as a matter of urgency, toward a specific brand, and for a preferred setting. Specific vacation setting can also be explored from the wellness perspective where, for example, resorts have been indicated to promote health during COVID-19 (Navarrete and Shaw, 2020).

Visitors were satisfied with the CSR initiatives related to bookings and communication irrespective of their intention to revisit; with satisfaction being the least important variable in the cluster formation. While CSR is important for brand maintenance, it may not necessarily contribute toward restoring confidence and reducing risk perceptions. The initiatives were perceived to be suitable within the crisis context. However, one policy deemed not to be fair was the fact that the normal cancellation policy applied during the crisis where consumers were forced to make an unexpected decision. The role of different CSR practices, risk perceptions and revisit intentions warrant further research.

CONCLUSION

The study investigated both the displayed and intended visitation behaviour of resort visitors within the context of the COVID-19 pandemic. The article contributes to our understanding of visitor behaviour within a crisis context to inform post-crisis demand recovery. Due to the unprecedented market changes brought about by COVID-19, our existing understanding of visitor behaviour has been challenged and research is needed to explore new emerging themes. The article does so by combining known and newly conceptualised drivers of behavioural intentions. Findings suggest that vacation dedication can be measured by seeing it as a matter of urgency, expressing it toward a specific brand, and for a preferred setting. This dedication contributes significantly to distinguish between visitor segments. Resort visitors predominantly consist of individuals that have higher levels of loyalty, as displayed through continuance commitment and membership that can regenerate demand. They are least likely to go to any available destination just for the sake of vacationing. This suggests that the relationship with a brand may assist in alleviating risk perceptions and support visitors' pent-up need to travel. A key finding is the importance of gender and life stage (children / marital status) in the formation of the segments. Resorts are lifestyle destinations, and further research is needed on the changing nature of vacation decision-making and family travel given new health and safety concerns. The study was limited to a few selected psychographic variables, while

future research can incorporate related constructs from attachment theory and risk perceptions. The affective dimensions of commitment and loyalty were not explored as preference was given to behavioural loyalty from the perspective of predicting demand. Nonetheless, affective elements play a key role in travel decisions. The study was cross-sectional, and it is not known whether the booking intentions materialised. In the light of the long-term relationship with resort visitors, longitudinal studies can determine new booking patterns post-COVID. Future research can also compare intentions across different types of vacation settings.

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Challenges of attending women's soccer events in Gauteng, South Africa

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ABSTRACT

Research concerning sport tourism participation previously focused largely on male dominated sports, particularly soccer. The purpose of this study was to investigate the challenges linked to spectator attendance of women's soccer events in the Gauteng province of South Africa. The study adopted the spatially based systematic sampling technique to collect the quantitative data and 167 useable surveys were collected. The descriptive study findings are based on these responses. The quantitative data was analysed using the Statistical Package for Social Science (SPSS). The key finding of the study revealed that the late release of fixture dates negatively affects fans plans to attend women's soccer events.

The study concluded that stakeholders directly involved in the advancement of women's soccer need to work together to combat such challenges to encourage community support for women's soccer.

Keywords: Sports tourism, challenges, soccer, women, South Africa.

INTRODUCTION

Tourism is considered a major employment provider due to its labour intensiveness and service orientation that expands the economy of a country and attracts foreign revenue as direct and indirect impacts that spread economic benefits and opportunities (Bob & Potgieter, 2013:73). Sport also is understood to provide a sense of purpose by generating community pride as a time to celebrate culture (Swart & Bob, 2007:374). Sport support and participation has become a global phenomenon and international sport competitions have fuelled an ever increasing world tourism market and as such, sport and tourism have been utilised as drivers of urban rejuvenation (Swart & Bob, 2007:374; Magangqaza, Bama & Venske, 2022) South Africa (SA) has steadily used sport tourism to advance the country as a major sport events destination by facilitating the rugby, cricket, and the FIFA World Cup following the 1994 elections (Bob & Potgieter, 2013). These events have several benefits for SA host communities as employment opportunities for locals and hawkers selling souvenirs, food and South African branded merchandise such as flags at the stadiums during soccer events. These create an opening for small business growth. Additionally, there is the intangible benefit of drawing attention to various destinations in South Africa and soccer activities in South Africa.

RELATIONSHIP BETWEEN SPORT AND TOURISM

Tourism comprises the activities of people travelling to and remaining in places exterior to their standard environment for not longer than one successive year for amusement, business, and diverse purposes, with no compensation from the destination (Mtapuri & Giampiccoli, 2019).

Sport is linked to competitive human play which includes the concepts of time, space, and formalised rules (Mareš & Novotný, 2023). Therefore, sport tourism can be seen to fuse together sport and tourism. Standeven and De Knop (1999:5) demonstrated that the relationship between sport and tourism is one that is reciprocal. They noted that tourism not only aids sport but progresses tourism by advertising an ever-increasing amount of visitor encounters with a host country. According to Weed (2020) sport tourism expands both sport and tourism, thus is well recognised as an instrument in financial and social rejuvenation for rural and urban communities (Swart & Bob, 2007). Cornelissen (2007:241) asserts that sport tourism may yield significant economic benefits for host communities from the “movements of people that involve transportation, construction, and renewal of amenities, creation of employment, cultural exchanges, specific services and a range of commercial activity involving sports cruises, tours, attractions, and use of resorts”. Sport tourism encompasses both sport and tourism and these two sectors offer remarkable partnering opportunities due to their roles in society and economies (Eslami, Farahani & Asadi, 2013). Sport and tourism are interrelated in terms of practice as tourists partake in sports while on holiday, while sport spectators and competing athletes travel to sport competitions or to partake in their sporting passions (Hinch & Higham, 2011:33; Higham, 2021).

SPORT TOURISM EVENTS

Sport tourism includes holding sporting events and the latter is acknowledged as a research concept. Several authors (Hinch & Higham, 2011) have identified the relationship between tourism, events, and sport. Literature suggests that socialisation through these events has played sports particularly alluring for spectators and sport tourism events can attract tourists where a large percentage of those attending are spectators (Kurtzman & Zauhar, 2003; Nyikana & Tichaawa, 2018; Duan, Bing & He, 2020). According to Bjelac and Radovanovic (2003:264), sport events are “events which are characterised by creative and complex sportlike, recreational activities, with entertainment and are performed in accordance with a particular predetermined programme”. Bjelac and Radovanovic (2003:264) categorised sport events according to six different scales. Sport tourism as events is widely acknowledged for positive concept capitalisation of resources when collaboration by sport, entertainment, and tourism authorities develop both non-competitive and competitive sporting events (Smith, 2010). According to Turco, Riley and Swart (2002:74), non-competitive and competitive sport both give rise to sport tourism events, defined as events whereby the prime purpose for travel is to participate or view sport”. Sport tourism has advanced over the past decades and sport events have aided in fast tracking this growth (Gössling, Scott & Hall, 2021).

WOMEN’S SPORT MEDIA COVERAGE AS A HISTORIC CHALLENGE TO DEVELOPING FAN SUPPORT

Women have been participating in competitive sport for over several years but historically held only limited amounts of the total sport media coverage in comparison to that of men’s sport coverage (Hall & Oglesby, 2016). It is openly acknowledged that past inequality existed when it came to media reporting that suggested women’s sport was less noteworthy to that of men’s (Sherry, Osborne & Nicholson, 2016). Not only did this make women’s sport more obscure to follow for potential spectators but it has also resulted in female role models not being copious due to their scarcity in the media (Hall & Oglesby, 2016). Limited media coverage of women’s sport despite the exceptional increment in the involvement of women within sport at high school, college, and professional levels can send the message to fans that sport remains dominated by men (Cooky et al., 2013). Research showed that older media coverage considered that women who play sports such as soccer or hockey in teams were unlikely to be individually featured in sport photography but individual sports such as swimming or tennis were seen by the media to be gender appropriate and got some media coverage (Sherry et al., 2016). There has also been criticism raised against media as female athletes can be defined in terms of their physical features sexually objectifying women which in turn may undervalue their performance and reaffirm traditional concepts of femininity (Sherry et al.,

2016). Hall and Oglesby (2016:272) argued as recently as 2016 that “women athletes are included not for their athleticism but for their sexual appeal, pictures of female athletes in provocative poses are common in the media; after all sex sells”. Their commentary was supported by the German Soccer Association, well known as Deutscher Fußball-Bund (DFB) being seen to have endorsed until recently, eroticised images of women’s soccer to entice male fans to women’s soccer events (Meier et al., 2016).

Against this background, South African women’s soccer development represents opportunity for sport events that may help communities find alternative solutions to socioeconomic issues. This study sought to gain insight to the research question: what is the ability of women’s soccer to pull fans to certain destinations that may ultimately encourage local economic development?

METHODOLOGY

This study adopted a descriptive approach with primary data collected using a self-administrated survey composed of statements that required a indication of agreement of that statement or alternatively agreement on a scale, as a tick (SD = strongly disagree, D = disagree, N = neutral, A = agree, SA = strongly agree). Data collection was done at township stadiums in the Johannesburg and Ekurhuleni areas in the Gauteng province, South Africa at three women’s soccer matches over a period of three months. The researcher trained 3 field workers herself to collect data outside of the stadium four gates (one collector at each gate) as fans were leaving and every 10th adult 18 years and older was asked to complete a survey. The decision to ask fans after the event was to ensure that their entry to the stadium was not slowed and in this way, respondents had more time to answer the survey. Before the study in the field began ethics clearance was applied for from the University of Johannesburg and gained. Further to that each respondent was explained the study before making their decision to participate. Respondents were also informed that their responses were anonymous as no personal data was captured in the survey and that they could opt out at any point. Descriptive statistical analysis of the findings utilised 167 fully completed survey responses from spectators at women’s soccer events. The Statistical Package for Social Sciences (SPSS) version 25 software was used to analyse the data. The descriptive analysis undertaken with SPSSv25 provided opportunity to unearth challenges and opportunities that the stakeholders of South African women’s soccer, have available to them to advance women’s soccer.

FINDINGS

RESPONDENTS’ PROFILE

Determining the profiles of participants is vital as the information can be used to investigate the factors that determine the attendance (for marketing purposes) and buying behaviours (to target customer needs with products and services) of sport fans (Zarei & Ramkissoon, 2021). Profiling respondents gives ideas to events facilitators, planners, and all other stakeholders to ensure efficient and effective sport event tourism management (Stander & Van-Zyl, 2016). The findings of this study indicated that for the attendance at the three matches, male respondents constituted 64% of the sample, while female respondents made up 36%. The youth, individuals under 35 years of age, constituted the majority of respondents in the study at 65%. Additionally, the results showed that 48% of respondents limited income to spend on sports attendance when an entry fee is required while the remainder had some form of employment. The majority (68%) of respondents lived near the soccer match event. Most respondents (78%) expressed an interest in supporting the growth of South African women's soccer.

MARKETING OF WOMEN’S SOCCER EVENTS

Respondents were asked how they found out about the event(s) and were given a list where they could choose more than one option of where the event would have been advertised (Table 1). This was done to investigate which marketing strategies would be best to use to attract

fans to a women's soccer event. A wide range of media had been used to advertise these three events. Friends and family (28.2%) emerged as the most efficient in circulating the occurrence of such events, followed by word of mouth (the respondent heard it somewhere at work/ a restaurant etc) (24.1%). Social media like Facebook and Twitter accounted for 11.3%. Newspapers (10.8%), television (10.3 per cent), radio (6.2%), and sports websites (3%), have been confirmed as the source of information for respondents. Results suggest that these women's soccer event fans tended not to rely on traditional media channels like radio, television, and newspapers for event details. Word of mouth including word-of-mouth from family members and friends has always been a very quick, yet cheap means of marketing (George, 2008; Hanaysha, 2021), which supports its dominance in this study as a means of women's soccer communication.

TABLE 1: MARKETING OF THESE THREE WOMEN'S SOCCER EVENTS

Marketing (n = 167)	Total (%)
Television	10.3
Newspaper	10.8
Radio	6.2
Social media: Facebook, Twitter	11.3
Friends or family	28.2
Internet: Blogs, sport websites	3.1
Word of mouth communication	24.1
Other	6

FREQUENCY OF ATTENDANCE AT WOMEN'S SOCCER EVENTS

The respondents were asked about the frequency with which they attended women's soccer events. Table 2 reflects that nearly 26% attended rarely or not at all. Please note that the 'never' respondents told the researcher they were only there because a friend or family member requested them to come but they had never come on their own. The remainder had all previously attended women's soccer matches. This suggests that the fan support base for women's soccer is growing in South Africa.

TABLE 2: FREQUENCY OF ATTENDANCE

Attendance frequency (n = 167)	Total (%)

Never	7.8
Rarely	18.6
Sometimes	38.9
Often	15.2
Always	19.5

INTEREST IN WOMEN'S SOCCER

The questionnaire survey examined the levels of interests of the respondents in women's soccer events. Ascertaining who is interested in the event and the extent to which they are interested is very important in terms of planning for future events (Pearce, Murphy & Brymer, 2009; Peric, 2010). Respondents were asked about their interest in terms of their support for the growth of women's soccer in South Africa. As shown in Table 3, the majority (41.9 per cent) indicated that they were very interested, followed by those who indicated 'interested' (35.9 per cent), whereas (19.8 per cent) expressed that they were somewhat interested and only 2.4 per cent responded by saying they were not interested in supporting women's soccer.

Overall, the results indicated that there was a great interest in women's soccer as the majority of the respondents have some form of interest. This coincides with Goslin (2008), who believed that it is only a matter of time until the world of sport will see people rallying behind women's soccer in South Africa.

TABLE 3: INTEREST IN SUPPORT FOR GROWTH IN WOMEN'S SOCCER

Interest level (n = 167)	Total (%)
Not interested	2.4
Somewhat interested	19.8
Interested	35.9
Very interested	41.9

INTEREST IN WOMEN'S SOCCER

Table 4 presents the levels of interest in the sport. The majority (38.9 per cent) indicated that they were interested in watching women's soccer on TV, and attended matches when they can. Of the respondents 25.7 per cent indicated that they were devoted to women's soccer and tried to attend most matches, while 18.6 per cent were interested in women's soccer and watched it on TV. Respondents not interested in women's soccer amount to 16.8 per cent

however, they would watch the matches because their family and friends are interested in women's soccer so they wanted to be included. This was evidence indicating that women's soccer is gaining popularity, which is a positive for South African sport and event tourism.

TABLE 4: INTEREST IN WOMEN'S SOCCER

Interest levels (n = 167)	Total (%)
I am a devoted fan of women's soccer trying to attend as many matches as possible	25.7
I am interested in women's soccer watching it on TV	18.6
I am interested in women's soccer watching it on TV and attending when I can	38.9
I am not interested in women's soccer, but I sometimes watch matches because family or friends are interested	16.8

WOMEN'S SOCCER DEVELOPMENT CHALLENGES

Women's matches are not played at convenient times on the weekend - In relation to Table 5, the statement (V1): 'Women's matches are not played at convenient times on the weekend', was posed to find out how convenient the match scheduling is as this is important information for organisers wanting to attract fans. Of the respondents, 40.1 per cent agreed that the matches are convenient in terms of time, 33 per cent of the respondents disagreed with the statement, and 26.9 per cent remained. Respondents noted to the researcher that matches played during the day on weekdays make it difficult for fans to watch these games.

TABLE 5: DEVELOPMENT CHALLENGES

Item	Women's soccer development statements	SD	D	N	SA	A	M	STD
V1	Women's matches are not played at convenient times on the weekend	7.3	25.7	26.9	32.3	7.8	3.08	1.087
V2	The venues where women's matches are held are not well maintained	6.1	25.7	26.3	29.3	12.6	3.17	1.128

V3	Security is not adequate where women's soccer matches are played	9.6	19.7	24.0	29.9	16.8	3.25	1.225
V4	Women soccer teams don't attract skilled coaches	9.6	27.5	23.4	27.5	12.0	3.05	1.191
V5	playing soccer is not supported for girls at school level	6.0	15.0	24.1	38.6	16.3	3.44	1.114

Note: SD = strongly disagree, D = disagree, N = neutral, A = agree, SA = strongly agree, M = mean, STD = standard deviation

The venues where women's matches are held are not well maintained v2- As shown in Table 5, 41.9 per cent agreed with the statement, while 26.3 per cent remained neutral and 31.8 per cent disagreed. According to Stander and De Beer (2016), a fan will decide on the value of the sport event held at a stadium dependent on the physical attractiveness of that stadium and this indicates that the state of the stadium is important when it comes to attaching value to the event. The condition of township stadiums is often not well maintained compared with the newly built stadiums for the men's World Cup held in 2010 in South Africa.

Security is not adequate where women's soccer matches are played -, statement (V3) found that '46.7 per cent of the respondents agreed with the statement. For these respondents, the feeling of safety is important to them. Ludvigsen (2021) added that aspects of the sports context's venue such as safety and security might impact on fan attraction. This could be due to weak policy regarding women's soccer development, limited funds to beef up security, and a general lack of support for the sport. With 29.3 per cent of the respondents disagreeing with the statement, and 24 per cent of the respondents remaining neutral, it could mean that women's soccer does not attract large crowds when compared with men's soccer; hence, the limited security concerns.

Women's soccer teams don't attract skilled coaches - The statement (V4) was agreed with by 39.5 per cent, while 23.4 per cent remained neutral and 37.1 per cent disagreed. Despite minor points of differences between agreeing and disagreeing, the lack of skilled coaches could be attributed to limited sponsorship and funding for SA women's soccer so there is little to pay a good coach. However, the 37.1 per cent that disagreed could imply that some fans are satisfied with the manner in which women's soccer is developing being satisfied with current coaching staff hired for the roles.

Playing soccer is not supported for girls at school level - The majority (54.9 per cent) of respondents agreed with the statement (V5), 24.1 per cent remained neutral, and 21 per cent disagreed. According to Zarrett, Veliz & Sabo (2020), factors such as family income, race and ethnicity, type of community, as well as the school attended are some of reasons for the early drop out of females from sports. Pelak (2006) argued that sexual norms also prohibit girls from participating in sport as they are expected to participate in the domestic chores of the household, unlike boys who are allowed to play. The lack of school of school sport could be attributed to traditional beliefs, which does not recognise women as sports beings, but kitchen objects (Peric, 2010).

WOMEN'S SOCCER FUNDING CHALLENGES

Women's soccer fixtures are not released in sufficient time to plan attendance - respondents were asked to rate their level of disagreement or agreement with the statement (V6): As shown in Table 6, 42.5 per cent agreed with the statement, 33.5 per cent of the respondents disagreed, and 24 per cent remained neutral. Based on Engh's (2010) findings, during the AWC, the fixtures were released forty days before kick-off but these women's matches were announced only a few days before they occurred. One may argue that 40 days is enough. The respondents who disagreed, (33.5 per cent) believed that they get notification of fixtures in time but an almost equal percentage felt that they needed more notice.

TABLE 6: FUNDING CHALLENGES

Item	Women's soccer funding statements	SD	D	N	SA	A	M	STD
V6	Women's soccer fixtures are not released in sufficient time to plan attendance	4.8	28.7	24.0	28.7	13.8	3.18	1.137
V7	There is not sufficient funding available to develop women's soccer	5.4	17.4	25.1	35.3	16.8	3.41	1.120
V8	There are not appropriate leagues for all ages of women to play in	5.3	15.0	15.0	46.7	18.0	3.57	1.111

Note: SD = strongly disagree, D = disagree, N = neutral, A = agree, SA = strongly agree, M = mean, STD = standard deviation

Of the respondents, 42.5 per cent agreed with the statement (V7): *'There is not sufficient funding available to develop women's soccer'*. Swanepoel et al. (2015) supported this notion claiming that female soccer teams not only have inadequate funding to buy appropriate training equipment, but also lack money for players' basic expenses during trips. The lack of funding arguably delays the development of the sport, as women cannot play without appropriate kits and resources. However, 22.8 per cent of the respondents disagreed with the statement suggesting they felt funding as available. Women's soccer can succeed in terms of support and fan base, if well financed (Schmidt, 2012; Achu, 2018).

Another statement (V8): *'There are not appropriate leagues for all ages of women to play in'*, was agreed with by 64.7 per cent of respondents. Whereas, 20.3% disagreed with the statement. There have been talks and promises of a professional women's league in South Africa but nothing has materialised. This is not the only challenge because there are so many gaps when it comes to women's soccer in South Africa, currently there is only one sponsored league (Sasol League) however, this is only at a provincial level (Pelak, 2010; Bowes, Lomax & Piasecki, 2021). The lower leagues such as the regional leagues do not have any financial support and rely on funding by the team members themselves. Due to the lack of funding, establishing leagues is a challenge for most age groups of women and girls. There are lobbying for such structures to be put in place to close these gaps, however the lack of funding means that these structures have not as yet materialise.

DISCUSSION

Advertising of women's soccer in the mainstream media in SA is still at low levels, while male soccer dominates advertising in all forms of mainstream media, there's a need for a shift in media advertising that can give prominence to women's soccer. Research (Swanepoel, 2015; Bowes et al., 2021) has pointed out that such a shift can lead to the growth and development of women's soccer, thus contributing positively to sport tourism. The study established that attendance of sports events among participants was sporadic. Many respondents attended sports events when time and finances allowed. This was especially true when it comes to the attendance of women's soccer matches in this study. This finding was in line with Engh (2011) who argued that there is only very weak support for women's soccer in South Africa. This study established that many people are interested in watching women's soccer on television, though they may sometimes physically attend some of the matches. This finding indicated that there is potential to grow interest in women's soccer, which will have a positive effect on women's soccer in particular and sport tourism in general.

This study found that there seems an increasing appreciation among participants of women's soccer, and support for the sport is growing despite the abovementioned sporadic attendance. It was apparent that South African culture in general is opening up to women's soccer, as expressed by most participants in the study. This finding contradicts the contention of Cooky et al. (2013) that women's soccer in SA continues to suffer from a negative cultural mindset, which has an impact on its support. The study established that respondents enjoyed attending all levels of women's soccer matches. Most participants were willing to pay to attend the matches despite their low incomes. This can support women's soccer, thus acting as a means of enhancing sport tourism and subsequent local economic development. This finding was in line with Hashemi and Mohammed, Rasoolimanesh, Kiumarsi & Singh (2022), who argued that sports is capable of having a ripple effect of boosting local economies.

The study identified several challenges associated with women's soccer. One such challenge is the times that women's soccer matches are held. Most of the matches are played during the day, which is inconvenient. Playing matches during the day makes it difficult for spectators who are working to attend such matches. Another challenge that was identified by the study was that most venues that host women's soccer matches are not well maintained. Women's soccer matches are normally held in small stadiums in townships, where conditions of the field may make it difficult for games to be played smoothly. There is a need to maintain such facilities properly in order to make women's soccer matches more exciting. The issue of the calibre of coaches in charge of women's teams was also identified as a challenge. Respondents indicated that most women's soccer teams did not have high calibre soccer coaches. This affects team performance and sponsorship and in turn will affect the development of women's soccer as fewer funds will be channelled to the teams.

CONCLUSION

This study established that women's soccer is facing a number of challenges, ranging from structural issues, inadequate equipment, less competent coaching personnel, sponsorship, and funding. The facilities at which women's soccer events are held are also not up to standard, which lowers the quality of the matches additionally, the venues where women's matches are held are not well maintained. The type and capacity of the venue plays a major role in attracting people to an event. It is apparent that women's soccer is usually scheduled to be played in small venues in townships, which may not be appealing to fans. There is a need for women's soccer to be played in better venues where facilities and amenities meet the fans desires. For example, the matches could be held just before major men's soccer matches are played in well-established and high-class venues. This strategy would not be adopted permanently; however, it will give women's soccer the opportunity to have a large group of spectators. For major men's soccer events spectators are allowed to enter into the venue hours before the match starts, therefore this time can be used to showcase women's soccer until it attracts a huge following on its own. The issue of security when women's soccer

matches are held in townships becomes important. Townships are often associated with crime, and providing adequate security becomes a challenge. This will affect event tourism, as people will be unwilling to go to unsafe areas.

Coaching is another challenge identified by this study as affecting women's soccer. The inability to attract competent or qualified coaches, inadequate planning and support of women's soccer development, and insufficient funding continue to affect women's soccer. In addition, the study has identified that administrative skills and encouraging grassroots support for women's soccer are affecting the development of the sport. Even though a women's soccer league exists, it does not draw as much funding as the men's league. These challenges need to be addressed to advance women's soccer in Gauteng, and South Africa as a whole.

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WORKSHOPS

TITLE OF WORKSHOP	PRESENTERS	INSTITUTION
Envisioning an effective higher education approach for Generation Alpha in the management education sector	Sanri van Renssen , Anel van Rooyen	<i>STADIO School of Fashion, South Africa),</i>
Enhancing teaching and learning practices applied in Financial Management Sciences during the online and/or blended learning era.	Roelien Botha , Rika Nieuwoudt , Daniëlla du Preez, Alick Burger	<i>Akademia, South Africa</i>
Einstein's Conversation with Talent Managers	Nico Eric Schutte , Emmerentia Nicolene Barkhuizen	<i>University of the Western Cape, South Africa University of Johannesburg, South Africa</i>
Cultivating Critical Thinking Through the Question Formulation Technique (QFT): An Engaging Workshop for Educators and Managers	Tho-Marie Stoltz	Akademia, South Africa
Thought Experiment. Will Artificial Intelligence Become Leaders in the Workplace?	Bernard Odendaal	Akademia, South Africa

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Impact of working from home on employee motivation and job satisfaction on non-academic employees

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ABSTRACT

The first aim of this study was to determine the impact of working from home (WFH) on employee motivation. The second aim of this study was to determine the impact of WFH on job satisfaction. The third aim of this study was to explore whether technological skills impact employee motivation and job satisfaction whilst working from home. Data for this study was obtained from 354 non-academic employees at a public University in Gauteng, South Africa. Direct effects were assessed using R studio (version 3.6.3). Findings from the study indicated that there is a positive relationship between WFH and motivation and there is a negative relationship between WFH and job satisfaction and lastly that technological skills impact employee motivation and job satisfaction when WFH. The result of this study is useful in policymaking especially since more tertiary institutions are moving towards a hybrid working model.

Keywords: Working from home, motivation, job satisfaction, technological skills

INTRODUCTION

The rapid spread of the COVID-19 had significant implications for the tertiary education community globally (Azzahra, 2020). Employees in tertiary education had to immediately transition to working from home (WFH). This was challenging for some employees, particularly those who have never encountered remote working, were not technologically savvy and unable to work effectively from home due to factors such as the appropriate ergonomics,

internet connectivity and sufficient space to set up an office at home (O'Bannon, 2020). Online teaching and learning became an instant necessary norm and many employees in the education sector found it challenging to quickly adapt without the necessary training and sufficient policies and guidelines (Albrahim, 2020).

The transition to WFH has necessitated new skills for employees to perform their duties satisfactorily. For academic employees in education, it required new sets of pedagogical, content, planning, social and conversation skills because the competencies required for online teaching is vastly different from those required in conventional teaching (Mishra, Gupta & Shree, 2020). For non-academic employees' it meant new ways of aiding students who have challenges with registration, accessing marks, course selection and other relevant information pertaining to their studies (Adejare, Olaore, Udofia & Emola, 2020). Thus, the need for non-academic staff to have the right technological skills to ensure that they are still able to perform optimally when working remotely and can access proprietary information in a timely manner to assist students became integral (Karunarathne, 2021).

Little or no technological skills have proven to be a problem when employees are requested to WFH. Parham & Rauf (2020) found that employees with little or no technological knowledge may find it difficult to WFH and use technology-based platforms to execute their duties. These employees are not able to complete their responsibilities within the required period (Jamal, Anwar, Khan, & Saleem, 2020) and are unable to provide good service to their clients and therefore, compromises productivity and morale (Parham & Rauf (2020). It is for this reason that Cabero-Almenara, Barroso-Osuna, Gutiérrez-Castillo, Palacios-Rodríguez (2021) asserted the importance of technological skills and readiness amongst employees in tertiary education to succeed when WFH. In addition to technological skills research has also demonstrated that the change in the working environment from office based to WFH caused low employee motivation and job dissatisfaction (Wang, Albert, & Sun, 2020; Abilash & Siju, 2021). Other studies reported that the low motivation and job dissatisfaction are caused by factors such as professional isolation (Rysavy & Michalak, 2020), parental responsibilities such as caring for young children or caring for elderly parents interfering with work responsibilities (Galvez, Tirado, & Martinez-Arguelles, 2020) and the decline in face to face communication between colleagues (Susilo, 2020).

A plethora of studies exists about the impact of WFH academic employees in tertiary institutions (Hofer, Nistor & Scheibenzuber, 2021; Moorhouse & Kohnke, 2021, Duraku & Hoxha, 2020; Akour, Ala'a, Barakat, Kanj, Fakhouri, Malkawi, & Musleh, 2020). These studies highlighted positive and negative consequences. Positive consequences for academic employees included more discretion on the time and pace work gets done (Dockery & Bawa,

2020); an increase in work-life balance (De Wet & Bronkhorst, 2021), decrease in work-family conflict (Dockery & Bawa, 2020) and direct financial saving on commuting cost (De Wet & Bronkhorst, 2021). Negative consequences included academic employees being less productive with research and publications (Parham and Rauf, 2020), work overload and increased work stress (Matli, 2020). However, one area that has not been examined closely enough is the impact of WFH on non-academic employees. Therefore, this study explored the effect of WHF on non-academic employees as they play a vital role in the effective functioning of tertiary institutions. This study contributes towards the growing body of knowledge about the effects of WFH in tertiary institutions amongst non-academic employees. It provides useful information to policymakers about what factors to consider to maintain high levels of motivation and job satisfaction amongst non-academic staff members when WFH.

LITERATURE REVIEW

Bellmann & Hubler (2020) describes WFH as a work arrangement where employees complete their work duties at different locations other than their ordinary workplace, supported by technological connections. WFH therefore entails working from a different location other than the office. One of the challenges associated with WFH is the lack of social interaction between employees which makes collaboration amongst colleagues difficult (Karunaratne, 2021: 257), which can lead to employees feeling disconnected from their peers which and can lead to low employee motivation and a lack of job satisfaction (Wang, Albert, & Sun, 2020).

Employee motivation is described as a management process that inspire employees to perform a series of work activities that leads to the achievement of organisational goals and objectives (Schunk & DiBenedetto, 2020). Motivated employees habitually go the extra mile and do more than what is required from them and often experience high levels of job satisfaction. Motivation is essential because if employees are motivated, they will look for ways to improve service and customer satisfaction, additionally, organizations benefit from highly motivated employees who work towards their goals (Mahmoud, Fuxman, Mohr, & Reisel, 2021)

Andrade & Westover (2020) regard job satisfaction as a positive feeling about one's work and is achieved through one's motivation and job performance. It is therefore clear that employee motivation impacts the employees' level of job satisfaction. Sapta, Muafi, & Setini (2021) confirmed this when they found that there is a positive relationship between motivation and job satisfaction because when workers are motivated and committed to the organization, they experience higher levels of job satisfaction.

Working from home and employee motivation

Various authors reported a relationship between WFH and employee motivation. Sultana, Nor'ain Abdullah, Hossain, Sherief & Andelib (2021) found a positive relationship between WFH and motivation because when employees work from home, they are more efficient, experience fewer office politics, are more motivated, are less absent, and have lower turnover. Similarly, Susilo (2020) reported a positive relationship between WFH and employee motivation because when employees work from home, they can attend to personal matters during working hours, which makes their personal life more fulfilling. In contrast, (Palumbo, 2020) argues that contamination between work and personal life stimulates undesirable repercussions on the ability of employees WFH to manage the work-life connection. Song & Gao (2020) agreed with Palumbo (2020) and reported a negative relationship between WFH and motivation because there is no balance between home responsibilities and work responsibilities. The authors found that when WFH employees often tend to work longer hours and on weekends to complete their work tasks because they attended to personal matters during working hours.

Working from home and job satisfaction

In their study, Waizenegger, McKenna, Cai, & Bendz (2020) documented that employees who are WFH are free from distractions brought by colleagues, which can potentially improve their concentration, leading to high work performance and ultimately, job satisfaction. Nakrosiene, Buciuniene, & Gostautaitė (2019) concur that employees who work from home are likely to develop trust and satisfaction if they are trusted and supported by their supervisors and co-workers. For this reason, they become satisfied with their work and deliver on time as agreed when WFH. However, interestingly Farooq & Sultana (2021) reported lower job satisfaction amongst female employees when WFH because they are required to juggle between work and family responsibilities such as taking care of children, preparing meals etc. This negative relationship was confirmed by Bernarto, Sudibjo, Suryawan, Purwanto, & Asbari (2020) who found that health issues arise because female employees work longer hours from home which resulted in a lack of job satisfaction.

WFH, motivation, job satisfaction and technological skills

WFH is almost impossible without technology because it requires a combination of information and communication technology (Allen, Golden, & Shockley, 2015). Song & Gao (2020) found an association between technological skills, motivation, and job satisfaction. The authors reported that technologically savvy employees tend to be more productive and perform better to employees who are not as technologically savvy. This is consistent with the findings of Farooq & Sultana (2021) which showed employees who are not proficient with online tools, lack motivation and job satisfaction when WFH in comparison to their peers who are proficient with online tools. Similarly, Ali & Anwar (2021) discovered that employees with high technological skills are generally more motivated and experience higher levels of job satisfaction when WFH than employees who have lower levels of technological skills.

Waizenegger et al., (2020) also confirmed a relationship between technological skills, motivation, and job satisfaction when they reported that employees with low technological skills find WFH challenging and emotionally demanding which often lead to health challenges such as fatigue, anxiety and feelings of alienation and isolation.

THEORETICAL FRAMEWORK

The self-determination theory (SDT) was deemed suitable for this study. SDT describes the process through which motivation develops and how it influences human behavior and wellbeing (Ryan, 2017). Embedded within SDT, the basic psychological needs theory states that for high quality motivation to develop and for individuals to achieve optimal functioning, three fundamental needs must be fulfilled—the need for autonomy, the need for competence, and the need for relatedness (Breugh, Ritz and Alfes, 2018). In the context of this study autonomy can be described as feelings of making decisions regarding the executing of tasks, competence as the ability to use technology successfully to accomplish tasks and relatedness as the feeling of belonging to the organisation (Ryan, 2017). Maslach and Banks (2017) places high emphasis on the strong correlation between satisfaction of these basic needs and motivation. Breugh et al (2018) states that employees who have these needs met are inherently satisfied with their jobs which is also referred to as job satisfaction.

RESEARCH METHODOLOGY

The researcher adhered to the ethical guidelines expected from a researcher. The University's ethical standards and procedures was adhered to in conducting the research. Data collection only commenced after ethical clearance was obtained from the University. The ethical protocol

number that was issued by the ethics committee was H22/08/17. In addition to the ethical clearance obtained from the University participants received a letter informing them of the purpose of the research. They were also informed that participation is optional, no identities are required when participating and they have the right to withdraw from the process at any point.

A quantitative research design was used in this study. Quantitative research design was deemed appropriate for this study because it provides the opportunity to determine relationships between variables. The main instrument for data collection was a questionnaire, which was distributed to the participants both face-to-face and online (monkey survey) to obtain primary data from respondents. The questionnaire assisted the researcher in examining the relationships between motivation and WFH, job satisfaction and WFH and lastly technological skills and motivation and job satisfaction.

The population of this study comprised of non-academic staff members which included academic administrators, academic coordinators, finance officers, Information Technology (IT) workers, personal assistants, office managers and secretaries. Using Raosoft software, the recommended sample size was calculated to be 354 employees. This is an online software formula for calculating sample size. Raosoft ensures that the sample represents an appropriate population size; it considers the population, margin of error, confidence level, and response distribution when determining sample size. 400 questionnaires were distributed, from which 354 acceptable answers were obtained for a response rate of 88.5%.

Pre-validated scales were adopted from previous empirical studies. A ten-item scale that was adopted was used to measure the motivation variable. Job satisfaction was measured using a nine-item scale (Sultana, Abdulla & Mok 2021). Working from home (WFH) was measured using a ten-item scale (Susilo, 2020). Lastly, technological skill was measured using a five-item scale (Yu, 2020). A 7-point Likert scale ranging from 1 to 7 was used to identify responses to the scale items used to measure the indicators. All participants understood English; therefore, no translation was necessary for the questionnaire used.

Data was analyzed using R[^]Studio (R version 3.6.3). Multiple regression was used to explain the correlation between variables. Cronbach's Alpha was used to establish the reliability and validity of the measurement model. Ordered Logistic regression was applied to test the relationships.

Cronbach's alpha was used to establish reliability and validity. The scale consisted of 34 items with an average overall correlation between items of 0.553. Against this background, the scale reliability coefficient is (Cronbach's alpha = 0.877). A suitable Cronbach's alpha is between

0.6 and 0.8. The reliability test, (table 1 below) therefore, shows that the internal consistency of the instrument is of extremely high quality (Kline, 2011).

Table 1: The reliability test

	WFH	Motivation	Job satisfaction	Technological skill
Average inter-item covariance	.869	.698	.7996	1.079
Cronbach's Alpha	.807	.689	.765	.756
No. of items	11	9	9	5
Sample units	354	354	354	354
Overall average interitem covariance: .553				
Number of items in the scale: 34				
Scale reliability coefficient: 0.877				

FINDINGS

The first objective of this study was to establish if there is a relationship between WFH and motivation.

Figure 1: WFH and Employee Motivation



Figure 1 above reports the scatter plot of the relationship between employee motivation and working from home. The relationship between the two variables is weaker at the initial levels but becomes stronger at higher levels. The darker the colour, the stronger the correlation, which shows that there is a positive correlation between the two variables. Motivation seems to trend upwards or increase with WFH. The relationship is explained further in the regression analysis (table 2).

The second objective of this study was to ascertain if there is a relationship between WFH and job satisfaction.

Figure 2: WFH and Job Satisfaction



Figure 2 above shows a positive but weak correlation between WFH and job satisfaction. The relationship is weaker at the initial levels but flattens at higher levels. This observation goes against the theory. The result of the two variables shows a significant correlation trending upwards as employees continue WFH. The significance of this relationship in the presence of other related variables is shown in the regression analysis in Table (2) below.

The third objective of this study was to explore whether technological skills impact employee motivation and job satisfaction whilst WFH.

Figure 3: Motivation vs Job Satisfaction, Motivation vs Technology, Job Satisfaction vs Technology

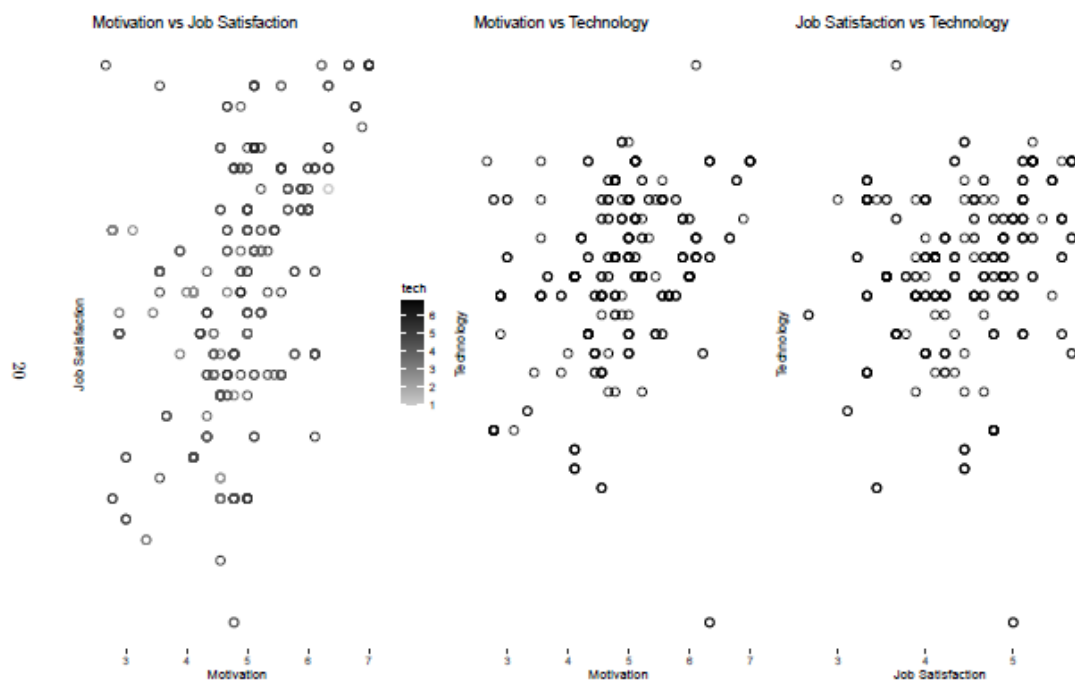


Figure 2.6: Respondents Profile (% of Total Count)

Figure 3 above shows a positive relationship between employee motivation and job satisfaction. The figure also indicates that employees with better technology skills have higher motivation. However, job satisfaction does not appear to have a significant relationship with technological skills. The implication here is that the positive relationship between employee motivation and job satisfaction arises from other factors beyond proficiency in technology.

Regression Analysis

Regression analysis was run to understand the effect of WFH and how this could affect employees' motivation and job satisfaction. Regression is commonly used to determine the relationship between each of the dependent variables and various explanatory variables. There are several procedures for aggregating responses from a questionnaire. In the results reported in this section, the researcher used simple averaging, which assigns equal weights to each response. The results were similar when the principal components analysis was used for aggregation.

Table 2: Multiple regressions

Dependent variable	Motivation	Job satisfaction	Job satisfaction
	(1)	(2)	(3)
Working from home	0.945*** (0.232)	-0.481*** (0.176)	
Working from home*			-0.235 (0.534)
Motivation		-0.157 (-0.177)	
Motivation*			0.910 (1.200)
Technology skills	0.865*** (0.272)	0.097** (0.042)	0.002 (0.224)
<i>wfh × tech</i>	-0.119** (0.052)		
<i>wfh × motiv</i>		0.103*** (0.035)	
Constant	-1.120 (1.280)	4.560*** (0.913)	1.090 (2.220)
Observations	354	354	354
Adjusted R2	0.444	0.402	0.254
Residual Std. Error	0.709 (df = 338)	0.523 (df = 337)	0.585 (df = 338)
F Statistic	19.800*** (df = 15; 338)	15.800*** (df = 16; 337)	9.000*** (df = 15; 338)
*p<0.1; **p<0.05; ***p<0.01			

The first test is a regression of motivation on variables including working from home (WFH), technological skills, age group, marital status, education level, and work experience as independent factors and motivation as a dependent factor.

$$Motiv = \beta_0 + \beta_1 WFH + \beta_2 TecSkl + \beta_3 (WFH \times TecSkil) + \beta_4 Controls + \varepsilon_{Motiv}$$

where motivation (*Motiv*), working from home (*WFH*), and technological skills (*Tecskil*) are constructs developed from responses to several questions, in the questionnaire, believed to be able to capture them. *Controls* include gender, age group, marital status, education level, employment category, and work experience. Also included is the interaction between technology and WFH.

Column (1) of the table reports results for motivation. The relationship between WFH and motivation is positive and significant at the 1% level, with a coefficient estimate of 0.945 (SE=0.232). WFH is positively and significantly related to motivation, indicating that WFH reinforces individuals' drive to meet their personal goals and those of the organization, and in the process achieve the main objective of the employer. The coefficient estimate (0.865; SE=0.272) for technological skills is also positive and significant at the 1% level; this indicates that technologically skilled employees are more motivated than those who are not. The interaction between WFH and technical skills has a negative and significant (at a 10% level of significance) relationship with motivation, with a coefficient estimate value of -0.119 (SE = 0.051). This result implies that technologically skilled employees are less motivated when they work from home than when they work from the office, perhaps because working from home does not avail them of adequate opportunities to utilize their skills optimally (Rahiem, 2020).

Column (2) of Table 2 reports results for the first regression with job satisfaction as the dependent variable. The following equation is estimated:

$$JobSat = \beta_0 + \beta_1 WFH + \beta_2 Motiv + \beta_3 Motiv \times WFH + \beta_4 Controls + \varepsilon_{JobSat}$$

The results show that working from home (WFH) is negative and significantly related, at 1%, to job satisfaction, with a coefficient estimate of -0.481 (SE = 0.176). This indicates that when employees WFH, they are less satisfied with their work than when they work from the office. That is, the results imply that the WFH “work environment” may not be ideal for most employees for various reasons such as “lack of effective communication” which, in the questionnaire, appears to be among the experiences about which respondents scored low points.

Technological skills are positive and significant at 5% with a coefficient estimate of 0.097 (SE = 0.042), implying, like in the case of motivation, that skilled employees are more satisfied at the workplace than employees with lower technological skill levels. It is evident that the interaction of WFH and motivation has a positive significance with job satisfaction with a coefficient estimate value 0.103 (SD = 0.034) at 1% level of significance, employees WFH are motivated and highly satisfied.

Alternative aggregation approach (Ordered logistic regression).

Table 3: Ordered logistic regression

	Motivation	Job satisfaction	
	(1)	(2)	(3)
WFH	1.428*** (0.530)	-2.162*** (0.562)	-2.449** (1.054)
Motivation		-1.976*** (0.676)	
Motivation*			3.582*** (1.018)
Technological skills	1.466** (0.633)	0.236 (0.253)	-2.000*** (0.602)
<i>WFH × TecSkil</i>	-0.125 (0.114)		
WFH x Motivation		0.518*** (0.136)	

Table 3 above shows the repeated regression using the median as the aggregation method for job satisfaction, working from home, motivation, and technological skills. That is, the median of the responses to the questions designed to collect data on these constructs is obtained and used in the regression (rather than the simple average as in Table 2). The key benefit of using the median is that it leaves the measurement of the constructs in the same form as the original responses in the questionnaire – that is, in the ordinal scale – and therefore speaks better to the nature of the data gathered than the simple average. Based on the results, there is a positive and significant relationship between working from home and employee motivation (1.428, SE=0.530, $p < 0.01$). As expected, WFH maintains its negative and significant relationship with job satisfaction, robustly confirming its dissatisfying role in employees. The results showed that WFH and job satisfaction are negative and significantly related with a coefficient estimate of (-2.162, SE=0.562, $p < 0.01$). The results of the second job satisfaction regression are reported in Column 3 of Table 3. As expected, WFH maintains its negative and significant relationship with job satisfaction, robustly confirming its

dissatisfying role in employees. Motivation explained reported a coefficient estimate value (3.582, SD=1.018), which was significant. The explained component of motivation (explained by working from home and the interaction between working from home and technological skills) reports a strongly significant (at 1%) and positive effect on job satisfaction. There was a positive and significant relationship between Technological skills and motivation with a coefficient of (1.466, SE = 0.633, $p < 0.05$). WFH and Technological skills reported a positive and significant relationship with Job satisfaction with a coefficient value of (0.518, SE= 0.136, $p < 0.01$).

DISCUSSION OF RESULTS

Based on the results it is evident that employees experience a higher level of motivation when working from home. This can be attributed to the fact that employees experience a greater degree of autonomy when WFH which according to the SDT high quality motivation develops when the need for autonomy is fulfilled. It is also clear that employees who are technologically savvy, are more motivated than those with low technological skills when WFH this confirms the proposition of SDT that an employee's competence and ability to use technology successfully is a prerequisite for high quality motivation.

In terms of the second objective of the study, the results also indicated that WFH is negative but significantly associated with job satisfaction with the first regression reporting (SD = 0.176 < 0.01), and the second regression reported (SD= 0.534 < 0.01). This can be attributed to feelings of isolation and loneliness, difficulty in adapting to the new ways of work and difficulty in setting up a home office. These findings are consistent with findings of past studies on the effect of WFH on academic employees by Iwu, Okeke-Uzodike, Anwana, Iwu & Esambe, (2022). In addition, according to the SDT an employees' relatedness and feelings of belonging to an organisation affects their level of motivation and ultimately job satisfaction thus if employees feel lonely and isolated their level of job satisfaction will be impacted.

The third objective was to determine whether technological skills have an impact on employee motivation and job satisfaction when WFH. The result in the regression indicates that technological skills are significant as far as motivation and job satisfaction are concerned (SD = 0.272 < 0.01), and technical skills are significant in job satisfaction (SD= 0.042 < 0.01). Meaning that employees require technological skills to be motivated and satisfied while WFH. This is an indication that skilled employees are more satisfied at the workplace than employees with lower technological skill levels. This finding consistent with the SDT which states that the employees' ability to successfully use technology when WFH impacts the level of motivation and job satisfaction of the employee. However, this finding is contrary to,

research by Zheng, Asif, Tufail, Naseer, Khokhar, Chen, & Naveed (2022) who argue that employees may experience techno stress when WFH which can negatively affect their level of motivation and job satisfaction.

CONCLUSION

The findings of this study on the effects of WFH on non-academic employees, has clearly demonstrated that there is a relationship between WFH and motivation, WFH and job satisfaction and that technological skill has a positive and significant association with employee motivation and job satisfaction when WFH.

RECOMMENDATIONS

Firstly, an investment in formal training of employees to enhance their technical skills will be beneficial as the study found that technologically savvy employees are more motivated and satisfied with their work when WFH. Secondly, offering employees flexitime even though employees are WFH will assist in reducing the stress associated with poor work-life balance especially amongst female employees. For example, employees may start the day earlier and finish earlier or start the day later and finish later despite WFH. Flexible working arrangements where employees can choose to work part of their workday or workweek remotely can also be an option for employees. Thirdly, to combat issues such as professional isolation, a policy can be implemented which prescribes specific day/s that all employees should be at the office for example every Wednesday all employees must work from the office and every alternative Wednesday there will be a compulsory knowledge sharing session where the more technologically savvy employees can provide practical hands-on training, advise and information about the use of technology when WFH.

PRACTICAL IMPLICATIONS

The purpose of the study was to determine the impact of WFH on employee motivation and job satisfaction among non-academic staff of a public institution. The result of this research supports the findings of Iwu, Okeke-Uzodike, Anwana, Iwu & Esambe, (2022) who posits that when WFH employees in the tertiary education sector need to be technologically ready.

This research provides a guideline for policymaking in tertiary institutions when considering moving away from the traditional way of work to a hybrid model. When implementing a hybrid work model factors such as technological competence of staff, appropriate job resources such

as laptops, data etc, organisational support (a IT helpline or helpdesk) that is available to employees who are not as technologically savvy and experience technological challenges whilst WFH should be considered. The availability of employee assistance programme that offers psychological counselling and assistance to employees who find it challenging to maintain a good level of work-life balance when WFH is also a consideration that management should take into account to assist employees with stress management and balancing home and work responsibilities especially female employees.

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Religious accommodation in the workplace: Lessons for human resource managers from recent legal judgements

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ABSTRACT

Religion is deeply rooted in South Africa but has been largely ignored as a Human Resource Management issue because of the predominance of diversity and inclusion imperatives related to race, gender and disability. As the next frontier of workplace diversity and inclusion, religious accommodation at work has already been the subject of several bitterly contested legal disputes. This paper aims to distil human resource management learning points arising from contested demands for religious inclusion in the South African workplace, to help realise the possibilities of human diversity, and to help organisations progress towards greater inclusivity. Eight legal judgements were identified after a systematic review, against specific criteria, of 2126 published legal proceedings concerning religious issues. All eight cases had been heard in the labour courts and served as the source documents for targeted thematic analysis. The analysis yielded a set of core principles for developing practical human resource management policies about religious accommodation in the workplace.

Keywords: Religion in the workplace, Human Resource Management

INTRODUCTION AND BACKGROUND

The International Compliance Association tasks human resource leaders “to improve objective decision-making processes by devising inventive ways of addressing workplace bias and promoting inclusive environments which provide opportunities for all employees” (O’Connor, 2021: 1). In South Africa, there are legislative imperatives and the assumed weight of corporate and moral obligations to ensure that all employees receive fair treatment and opportunity. Much has been written about different aspects of workplace diversity and inclusion, but religion has to date, received scant attention.

South Africa is a fascinating context for examining contested demands for religious expression in the workplace. When South Africa emerged from the bitter years of Apartheid in the 1990s, its people proudly embraced a secular constitutional dispensation that displaced the hegemonic Christian nationalism embedded into public life and education systems. Religion was a recognised but largely tangential concern to those negotiating the new South African constitution, but it could not be ignored. The Constitution is purposefully neutral about religion, there is no reference to any one religion or deity, and there is a clear establishment of religious freedom.

Prohibitions of unfair discrimination at work based on religion, culture or belief have been embedded in national law. Three specific Acts apply to disputes about religious accommodation in the workplace. According to the Labour Relations Act 1995 (s.187), discriminatory dismissals are unfair on listed or arbitrary grounds. According to the Employment Equity Act 1998 (s.6), unfair discrimination in employment policies or practices is prohibited on listed or arbitrary grounds. The Promotion of Equality and Prevention of Unfair Discrimination Act 4 of 2000 (the Equality Act) prohibits unfair discrimination, harassment and hate speech on several grounds, including religion, conscience, belief and culture (Kok, 2017).

According to reported government statistics (GCIS, 2019), over 70% of South Africans report affiliation with a Christian church. Christianity remains the predominant religion but is fragmented and no longer embedded in public life or law. There are three prominent minority religions: Islam (the fastest growing), Hinduism (concentrated in the KwaZulu-Natal province), and Judaism (a visible but very small and shrinking community). Other religious groups include Bahai, Rastafarianism, Animism, and many smaller groups. According to The General Household Survey, published by StatsSA, only 5% of South Africans are not affiliated with a religion.

Minority religious groups are not uniformly spread throughout South Africa. For example, Muslims, who comprised 1.9% of the total, predominantly reside in Western Cape, Gauteng and KwaZulu-Natal. Hindus comprise about 0.9% of the population of South Africa, but 3.3% of the population of KwaZulu-Natal are Hindus. The Jewish population is concentrated in Johannesburg and Cape Town. Communal religious participation also varies across the country and religious groups. For example, three-quarters (75.6%) of Muslims attend religious services and ceremonies (excluding weddings and funerals) at least once weekly. By contrast, 52.5% of Christians and 36.6% of Hindus attend weekly services. The most infrequent participation in services is noted for individuals that follow ancestral, tribal, animist or other traditional African religions. It is important to note, especially from a global-South perspective, that participation rates do not necessarily indicate the depth of religious identification across groups or the level of faith commitment among adherents.

The expression of religious belief may be a personal matter. Still, the uncritical acceptance of hegemonic, often implicitly religious, organisational norms regarding time, space and individual expression will increasingly be challenged in the workplace. Compromising the expression of faith at work and in other contexts is now perceived as less personally acceptable, especially by adherents to minority religions in organisations claiming to champion equality, diversity, and inclusion. Intra-organizational religious accommodations are the norm, but unresolved disputes have recourse to the Labour Courts or the Constitutional Court. Legal case notes are published regularly, but there needs to be more research on the decision-making process surrounding requests for religious accommodation (Tabesh & Jolly, 2018), which would help formulate guidelines to assist employers and employees who wish to prevent a dysfunctional conflict.

By identifying and systematically examining demands for religious accommodation disputed in South Africa, this paper distils general principles as the basis for specifying specific suggestions for developing policies and practices regarding religious accommodation in the workplace. Court judgements are assumed to be potentially useful in informing human resource practices that may help improve employee wellbeing, retention, and other organisationally salient outcomes. Systematic literature reviews of issues regarding religious identity at work have been conducted (e.g., Héliot, Gleibs, Coyle, Rousseau, and Rojon, 2020). In this paper, consistent with the epistemological stance of this study and the research

approach adopted, the emerging literature on religious accommodation in the workplace will not be reviewed.

Legal case notes are published regularly, but there needs to be more research on the decision-making process surrounding requests for religious accommodation (Tabesh & Jolly, 2018), and lengthy court judgements are not generally read by human resource managers or human resource executives. Consequently, the aim of this paper is as follows:

1. To begin an examination of religious accommodation issues that have disrupted SA workplaces
2. To discern themes and underlying principles applied in judgements about religious accommodation issues brought before the South African Labour Courts
3. To form the basis for guidelines about religious accommodation in the workplace that prevent conflict, improve employee wellbeing, enhance corporate image and reputation, and foster employee engagement
4. To respond to a call to examine the decision-making process surrounding requests for religious accommodation (Tabesh & Jolly, 2018)

METHOD

Using a qualitative approach with publicly available legal documents as units of analysis, a targeted thematic analysis was applied to detect common themes across cases, categorise the range of issues considered, and discern the principles the Courts used to balance competing arguments from employers and employees. This inductive approach lets the data speak (Ouald-Chaib, 2015). The READ approach to document analysis further informed the analysis (Dalglish, Khalid and McMahon, 2020), a systematic procedure often used in policy studies. The steps consist of (1) readying materials, (2) extracting data, (3) analysing data, and (4) distilling findings.

A search for legal cases related to religious expression in the workplace was conducted using Sabinet's Legal Information Services (sabinet.co.za). This online database contains South African legislation and legal proceedings, including all Constitutional Court, Labour Court and Labour Appeal Court judgements. Search parameters were set to cover all matters relating to religion and religious expression from 1994. The prespecified criteria for inclusion excluded cases in the military courts (where a widely publicised case regarding the wearing of a hijab by a uniformed soldier elicited a public outcry) and constitutional court cases regarding the religious right to inflict corporal punishment, wearing nose rings as a cultural artifact in school, or smoking cannabis as a religious obligation.

Ten thousand Sabinet legal records mentioned 'religion', but only 2126 of these related to issues about 'religious' matters (criterion 1). Of these, 141 could be categorised as 'labour' issues (criterion 2), which were examined more closely. Only eight of the 141 cases were concerned with issues regarding religious expression not being accommodated within the workplace (criterion 3). These eight cases were selected for further analysis. Each identified case was not analysed to seek confirmation deductively or to test specific hypotheses. Inspired by the Grounded Theory approach (Charmaz, 2006) but not wholly consistent with its provisions, each case was taken as a source for developing theoretical learning about how the courts conceptualised religious accommodation issues in the workplace. Because Courts are expected to carefully consider their decisions, be transparent in their decision-making, and justify their rulings, the analysis of Court judgements allows us the better understand the rationale for particular rulings and use this understanding to inform the operationalisation of

religious accommodation policy and practice in the workplace through human resource departments.

FINDINGS

Nuanced 'stories' from each case provided critical insight. Disparate forms of religious expression conflicted with corporate cultures embodied in corporate codes, rules, and traditional norms, often resulting in the contested dismissal of one or many employees. There is no established taxonomy of religious expression in the workplace. Still, categorising different forms of religious expression is necessary if any meaningful comment is to be made about the range of religious expression issues escalated to the labour courts.

The analysis was effected through a process of coding the text of each judgement, and the targeted thematic analysis yielded two broad themes across the cases: (1) the manifestation of religious beliefs at work and (2) the observance of religious beliefs away from the workplace. Issues relating to the manifestation of belief at work included personal appearance (beards in one case and dreadlocks in another). Issues relating to religious observances away from the workplace included accepting (in two separate cases) a sangoma's spiritual advice (a sangoma is one type of traditional South African healer who holds an esteemed and influential position in society as a counsellor, herbalist, physician, spiritual advisor, mediator and ancestral helper), religious holiday observance (one case), and sabbath observance (three cases). A summary of the selected cases is presented below.

Manifestation of religion through personal appearance

In *Dlamini & Others v Green Four Security* (2006), security guards (members of the Nazarene church) were dismissed after refusing to shave (or trim) their beards (required by their employment contract). The case was dismissed despite the expert opinion that there was no clear religious injunction not to trim a beard. The judge noted that the guards also worked on Sunday despite this being prohibited by their church. In *POPCRU & Others v Department of Correctional Services & Another* (2010), male Rastafarian and traditional Xhosa correctional officers were dismissed after refusing an order to cut their dreadlocks (violating the dress code). This was a complicated and protracted case. The final judgement notes that the male guard's religious beliefs were sincerely held and valid expressions of their faith commitment; it was also noted that female guards could wear dreadlocks. The case was taken on appeal, and the employer changed tack, alleging that dreadlocks are identifiable and indicate religious tolerance of cannabis (dagga), and would encourage narcotics smuggling and undermine the discipline and rehabilitation of inmates. The case was appealed, but the appeal was dismissed. The respondent's evidence was not disputed – the court found that hairstyle was not an inherent job requirement. Later, in the Supreme Court of Appeal, the appellant conceded that the dress code was discriminatory on religion, culture and gender.

Observance of religion by following spiritual advice

In *PPWA WU and Nampak Corrugated Containers* (1998), an employee was dismissed after an unauthorised absence of 14 days. He had visited a sangoma who advised an immediate period of spiritual work (the area had no telecoms). In this case, the more profound question is whether or not only the Eurocentric model of disease and healing could be recognised. The Court ordered the employee reinstated.

In *Kievets Kroon Country Estate v CCMA & Others* (2010), a chef employed by the estate started seeing visions and consulted a sangoma who advised that she needed to appease her ancestors & become a sangoma. The employer made scheduling accommodations so that the chef could attend sangoma training. The employee applied for one month's unpaid leave to

complete the training with a sangoma's letter. She was granted one week, and a medical certificate was requested. Chef took a month and was dismissed. The question before the court was the justifiability of the chef's absence from work and the veracity of certificates from traditional healers, which is not entrenched in law. The court ruled the absence justifiable to avoid the believed possible wrath of ancestors, a life and death situation for the chef. This decision was appealed, but the appeal was not successful.

Observance of religious holy days

In *FAWU & Others v Rainbow Chickens* (2000), Muslim employees appointed specifically to slaughter chickens according to Islamic law were dismissed for refusing to work on Eid ul Fitr (a Muslim religious holiday), which resulted in the entire operation having to close and all other employees being given the day off on full pay. This is an interesting and contentious case. Slaughter was an inherent requirement of the job, and not doing work caused undue hardship on the employer. In this case, the Court noted no unfair discrimination because all the slaughters were required to work on Eid. Even though the employer did not attempt to accommodate the aggrieved employees, primacy was given to business concerns.

Observance – sabbaths

In *TFD network Africa v Faris* (2019) 40 ILJ 326 (LAC), a Seventh Day Adventist was dismissed for incapacity after refusing to work 'required overtime' on a Saturday (Seventh Day Adventists observe the Sabbath on Saturday). The employee was the only employee who claimed exemption, had informed the employer about her beliefs, and sincerely believed that sabbath observance was central to her faith. The Court awarded her compensation.

In *Lewis v Media24*, 2010 31 ILJ 2416 LC: *Lewis v Media24 Ltd*. 1496, a Jewish employee employed as a sub-editor of a community newspaper was dismissed for refusing to work on Friday nights as required by a new work schedule. He alleged unfair discrimination and termination of employment based on his refusal to work on Friday night, which is part of the Jewish Sabbath. He claimed his employer knew he was Jewish (even though he had not told him) and should have realised he could not work on a Friday night. The case was dismissed; the Court noted that the employee was not sabbath observant and sometimes worked on Saturdays (part of the Jewish Sabbath). The Court further noted that there could be no reasonable expectation that an employer should anticipate religious accommodations.

In *SACTWU v Berg River Textiles*, a division of Seardel Group Trading (Pty) Ltd 1531, amidst strikes over a necessary new shift work instruction, which required work on Saturdays and Sundays, all employees were dismissed. Apostolic Faith Mission employee refuses to work on Sundays. One employee, Johannes Williams, a reborn Christian and member of the Apostolic Faith Mission, refused to work on Sundays for religious reasons. As a deeply religious member of the new apostolic church, the Sunday Sabbath was a central tenet of his religious belief. He had previously refused promotion and pay increases if it involved Sunday work. Further, he had 26 years of experience and was an excellent worker. He wanted reinstatement, even though all workers had been dismissed. The Court ruled that Williams' dismissal was unfair as he had been effectively dismissed for his religious beliefs and that accommodations could and should be made by the large company that employed him. Williams was reinstated.

Religious issues not considered by the South African Labour Courts

Interestingly, no cases were related to religious dress or speech, proselytising at work, religious proscriptions on gender interaction or proximity, serving certain foods or 'foodwork', or conscientious objection to specific work tasks. Neither were any of the arguments against

granting religious accommodations presented. There are at least three arguments for not granting religious accommodation; these have been noted in other countries but are not mentioned in the South African judgements:

1. Separation of church and state. In France, the principle of laicite enforces secularism in the public sphere.
2. Religious coercion: In Switzerland, a kindergarten teacher was prohibited from wearing a hijab (Islamic headscarf) to work to protect the religious freedom of the schoolchildren and as an issue of gender equality. Interestingly, no parents of the children complained (Dahlab v Switzerland, 2001).
3. Displays of religious extremism: Religious symbols or clothing as markers of religious extremism.

Nine underlying principles relevant to human resource managers

Analysis of the written judgements indicated that the labour court judges carefully weighed the balance of presented arguments, probed the sincerity and religious commitment of the plaintiffs, and sought to balance religious freedom with the operational needs of employers, the rights of the individual employee with the rights of their co-workers, and the overall interest of having a diverse workforce in a country with a unique cultural and religious diversity that requires protection. Nine principles were drawn from the pattern of judgements, and these are offered as a suitable frame for religious accommodation discussions between employers and employees and the development of human resource guidelines to inform instances when employees seek accommodation for their religious beliefs in the workplace:

1. The religion practised by the employee is credible (a generally recognised religion)
2. The employee genuinely practices the religion as a sincere act of faith.
3. The manifestation of a particular observance that requires accommodation is “essential” to the faith commitment of the employee.
4. Religious accommodation has minimal effect on coworkers in the workplace.
5. An ostensibly neutral workplace rule or policy applied to all employees may be discriminatory if it offends an individual employee’s religious convictions. (cf. FAWU v Rainbow Chicken Farms).
6. The employer must be informed directly about the employee’s religious beliefs, although employees do not necessarily have to disclose or assert their rights.
7. When an employee presents a prima facie case of discrimination, the onus is on the employer to establish that the rule is an inherent requirement for the job or that the discrimination was fair under the circumstances. In particular, the employer must show that it has taken reasonable steps to accommodate the employee’s religious convictions.
8. The principle of proportionality applies, and an employer may not insist on an employee obeying a workplace rule contrary to their religious beliefs where refusal would have little or no consequence to the business.
9. The employer’s motive and intention are not relevant. It is not relevant whether the employer acted with benign motives or not.

PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

Arising from the above nine principles, is it possible to derive a set of workplace guidelines for employers and employees?

Guidelines for employees when seeking religious accommodation

1. Provide information regarding their religious community, its recognition by other bodies, and the identity of a community of believers.
2. Provide evidence that their religious beliefs are practised in a “genuine”, “sincere” way and not flexibly or selectively.
3. Provide evidence that the religious observance or manifestation for which religious accommodation is sought is a central tenet of their religion.
4. At the earliest opportunity, inform the employer about specific religious accommodations that will be sought.
5. If entering into a dispute regarding a request for religious accommodation, show that the employer has or will prevent the employee from practising or participating in their religion.

Guidelines for human resource managers

1. Realise that a seemingly uncontroversial and ostensibly neutral workplace policy equally applied to all employees may be discriminatory if it limits an individual employee from practising their religion.
2. Create a non-threatening framework for employees to declare their religious convictions, which may necessitate requests for religious accommodations while recognising that employees should not be required or encouraged to share their religious beliefs with the employer or assert their rights.
3. When confronted with an employee claiming religious discrimination, establish that the rule or policy is an inherent requirement for the job or that the discrimination was fair under the circumstances.
4. Apply the principle of proportionality in responding to requests for religious accommodation by considering the extent of the consequences of accommodating the request.
5. Acknowledge from the outset that employer motive and intention are not relevant to cases regarding religious accommodations, and it is therefore not relevant whether or not the employer acted with benign motives.

FINAL NOTE

This ‘final note’ in this paper, rather than any attempt at a formal ‘conclusion’, signals the emergent nature of this research topic. Accommodating religion in the workplace should help unleash human potential and progress workplace relationships so that we progress towards a better, more inclusive future. No conclusions can be formulated at this initial stage, but the possibility and utility of further examination have hopefully been indicated. Each identified case is presented not as a legal decision for noting but as a reference source for learning how to understand the equitable management of human diversity and the operationalisation of

inclusion in the workplace, uncovering and challenging both platitudes and developing principles about how and when to champion religious accommodations best. The reference context for this paper is South Africa. However, the resulting insights should apply to many other contexts and jurisdictions trying to balance inherent or urgent job requirements, effectively manage employee engagement, and retain an authentic commitment to equality, diversity, and inclusion.

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