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Adoption of Generative AI in Loyalty Programmes to Enhance Customer Engagement in South Africa

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A research report submitted to the Faculty of Commerce, Law and Management, University of the Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Management in the field of Digital Business

Johannesburg, 2025

ABSTRACT

This research investigated the adoption of generative artificial intelligence (GenAI) in loyalty programmes and its potential to enhance customer engagement in South Africa. The study explores how businesses can leverage GenAI technologies to foster stronger relationships with their customers, increase participation in loyalty programmes, and drive growth and loyalty within the South African market. The research method involved conducting interviews with ten senior management professionals from both the business and technology sectors of an organisation planning to adopt GenAI in its loyalty programme. Using the Technology-Organisation-Environment (TOE) framework, the study assessed the factors influencing GenAI adoption. This approach provided a comprehensive evaluation of the technological, organisational, and environmental aspects impacting the successful implementation of AI-driven personalisation. Findings suggest that GenAI can drive hyper-personalisation, improving customer loyalty and engagement through tailored rewards and real-time experiences. However, challenges like departmental misalignment, knowledge gaps, and change management need to be addressed for successful adoption. Ethical concerns regarding privacy, algorithmic bias, and inclusivity also need to be considered. Recommendations include improving data quality, aligning strategies, addressing change management, and ensuring ethical AI practices to unlock GenAI's full potential. The contribution of this research will benefit key stakeholders, including organisations looking to enhance customer engagement with GenAI, policy bodies creating frameworks to support innovation and ethical practices, tech developers tailoring solutions for successful implementation, and the academic community advancing discussions on GenAI’s impact on consumer-focused innovation.

KEYWORDS

Loyalty Programmes, Artificial Intelligence, AI, GenAI, Generative AI, Customer Engagement, TOE, Technology-Organisation-Environment Framework.

DECLARATION

I, Ramaesela Hazel Digama, declare that this research report is my work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Management in the field of Digital Business at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

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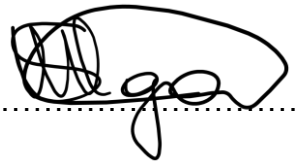
Signature: 

Signed at Centurion

On the 24th day of May 2025

DEDICATION

I dedicate this dissertation to my late mother, Ramorwane, my grandmother, Mmakolobe, and my grandfather, Legasa Digama, each of whom I lost at different stages of my life. They always believed in me and my ability to achieve great things. Most importantly, they instilled in me the confidence that I was capable of achieving any goal I pursued in my studies. Unfortunately, they are not here to celebrate this incredible milestone with me, but I know they are always with me in spirit and are proud. May your souls continue to rest in peace.

To my partner, Siphamandla – *"Mshengu, Shabalala, Ludonga Lwamavuso, Sidwaba Siluthuli"* your unwavering support, patience, and selflessness have been my greatest source of strength throughout this journey. You not only encouraged me every step of the way but also took over our household responsibilities, ensuring that our home continued to run smoothly. Your love and sacrifices, especially in caring for our children when I could not, allowed me the time and space to focus on my studies. I am forever grateful to have you by my side.

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To my sister, my greatest cheerleader, your unwavering belief in me has been a constant source of encouragement. Your words of support, prayers, faith in my abilities, and the way you have always celebrated my victories - big or small - mean the world to me. Thank you for always being in my corner.

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"I can do all things through Christ who strengthens me." - Philippians 4:13

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LIST OF ACRONYMS

Table 1 List of acronyms

Acronym	Full Form
4IR	Fourth Industrial Revolution
AI	Artificial Intelligence
AR	Augmented Reality
CCPA	California Consumer Privacy Act
Chat-GPT	Chat Generative Pre-trained Transformer
CRM	Customer Relationship Management
DL	Deep Learning
GDPR	General Data Protection Regulation
GB	Gigabyte
GenAI	Generative Artificial Intelligence
HITL	Human in the Loop

IoT	Internet-of-Things
LLM	Large Language Model
LP	Loyalty Programme
ML	Machine Learning
NLP	Natural Language Processing
PoC	Proof of Concept
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
QSR	Quick-Service Restaurant
SEO	Search Engine Optimisation
TOE	Technology Organisation Environment

CHAPTER 1. INTRODUCTION

1.1 Statement of Purpose

This study investigated the adoption of Generative Artificial Intelligence (GenAI) in loyalty programmes and its potential to enhance customer engagement in South Africa. By examining the current implementation and impact of GenAI technologies within this specific market, the research seeks to provide insights into how businesses can leverage these advanced tools to foster lasting relationships with their customers, increase participation in loyalty programmes, and ultimately drive growth and loyalty in the South African context.

1.2 Background of the Study

According to Baddam (2022), businesses continuously seek innovative ways to foster customer loyalty and engagement in the rapidly evolving digital landscape. Loyalty programmes have long been a strategic tool for enhancing customer retention and driving repeat business (Baddam, 2022). However, traditional loyalty programmes often face challenges in personalisation, customer satisfaction, and adaptability to changing consumer preferences (Chen et al., 2021; Kshetri et al., 2024). The cause of these challenges could be attributed to the rapid technological advancements and changing consumer behaviours brought about by the digital age (Dowling, 2023). Dowling (2023) also highlighted that these programmes often lack transparency, making it difficult for customers to understand how points are earned and redeemed, which undermines trust. Additionally, they tend to offer generic rewards that do not align with individual customer preferences, resulting in perceived low value and diminished motivation to engage. These issues collectively lead to reduced customer participation and a decline in the overall effectiveness of loyalty programmes (Dowling, 2023).

Lv (2023) states that generative artificial intelligence (GenAI), a subset of AI technologies, has emerged as a game-changer in various industries, offering advanced capabilities in data analysis, content creation, and personalised interactions. GenAI models, such as GPT-4, and DALL-E, can generate human-like text, craft tailored marketing messages, and predict customer behaviours with remarkable accuracy (Zeng et al., 2023). These capabilities present a significant opportunity for businesses to revolutionise their loyalty programmes (Lv, 2023). Gartner's report released statistics from a poll from more than 2500 executives in 2023 showing that the primary focus of generative AI initiatives within their organisations was customer experience and/or retention followed by growth (Gartner, 2023).

The World Bank (2024) report shows that in South Africa, a dynamic and diverse market, businesses increasingly recognise the importance of digital transformation to stay competitive and have been making strides towards digital transformation. This shift is driven by the need to adapt to changing consumer behaviours, leverage advanced technologies, and enhance operational efficiency (WorldBank, 2024; Rathore, 2019). The adoption of AI technologies in customer engagement strategies is gaining momentum, yet the specific application of GenAI in loyalty programmes remains underexplored (Goldstuck et al., 2024). Understanding how GenAI can enhance loyalty programmes could give South African businesses a powerful tool to deepen customer relationships, increase engagement, and drive growth. Thus, the study aimed to explore the adoption, applications, and benefits of GenAI in loyalty programmes, identify key strategies for successful implementation, and analyse perceived benefits from a customer point of view within the South African market.

1.3 Research Problem

Bergius (2023) states that loyalty programmes foster customer retention and engagement. He also highlights that they stimulate repeat purchases and increase customer interaction. The programmes face unique challenges such as

diverse customer preferences, economic variability, and technological readiness (Chen et al., 2021; Bergius, 2023). Traditional loyalty programmes often struggle to provide personalised and engaging experiences, which can lead to reduced customer satisfaction and loyalty (Bijmolt & Verhoef, 2017; Bergius, 2023). Yoo and Piscarac (2023) highlight that the key aspect distinguishing machine learning from traditional marketing statistics and computer science is its ability to continuously improve with new data. This capability significantly impacts all data-driven marketing areas, including analytics, automation, advertising, content, email, sales, search, social media, and websites. It could be argued that South Africa is no different from other countries across the world regarding the challenges being faced with loyalty programmes. Generative AI offers an innovative solution by enabling highly personalised and dynamic loyalty programme benefits and incentives, tailored to individual customer needs and behaviours (Ferreira, 2024).

While GenAI holds significant potential to transform loyalty programmes, its adoption involves navigating a complex landscape of technological, economic, and cultural challenges (Ooi et al., 2023). Therefore, the research problem explored how GenAI can be effectively adopted within South African loyalty programmes to enhance customer experience, engagement, and retention, and also to identify the specific benefits and obstacles associated with this technological integration.

1.4 Research Questions

The main research question was: *How can generative AI be effectively integrated into loyalty programmes within the South African context to enhance customer experience?*

The following are the research sub-questions:

1. How can generative AI be adopted to customise loyalty programme rewards and incentives for each customer?

2. What are the potential benefits and obstacles associated with integrating generative AI into loyalty programmes?
3. What are the ethical considerations and societal impacts of using generative AI in loyalty programmes within the South African context?

1.5 Rationale

The rationale for this study lies in the critical need to explore the effectiveness and results of integrating artificial intelligence into loyalty programmes in South Africa. There is significant potential that these methods could enhance customer experience, engagement, and retention within organisations that have loyalty programmes (Rane, 2023). In one study, Radder et al. (2015) suggested that innovative approaches are necessary to enhance customer loyalty to a brand and to strengthen their perception of it.

Another objective was to expand and enhance the existing knowledge base by incorporating a diverse array of studies conducted around the world by different authors like Rane et al. (2024) and Kelly et al. (2023) to integrate these findings within the specific socio-cultural, economic, and geographical context of South Africa. These could range from the practical implementation to the ethical considerations surrounding generative AI, for which the South African Government, in collaboration with various organisations, is still in the process of finalising policies (Mashishi & Gungubele, 2023). Since then, significant progress has been made with the publication of South Africa's National AI Policy Framework in late 2024. This framework outlines the government’s strategic approach to harnessing AI for economic and social benefits while addressing critical challenges such as ethical AI use, privacy, and data protection. By setting a foundation for AI governance and collaboration with industry stakeholders, the policy underscores a commitment to fostering innovation in AI while ensuring alignment with the country's socio-economic goals. This development provides a clearer context for evaluating the integration of generative AI into loyalty

programmes, as it signals an evolving regulatory landscape that organisations must navigate (Department of Communications and Digital Technologies, 2024). The insights derived from this study could serve as a valuable guide for other organisations in South Africa and globally, providing a framework for implementing similar AI technologies in future loyalty programmes.

1.6 Delimitations of the Study

a) This research solely focused on loyalty programmes in South Africa and how integrating generative AI could drive customer engagement and retention.
b) The questionnaires: The study focused on senior managers within an organisation that plans to integrate GenAI into its loyalty programme.
c) The researcher reached out to the senior managers in the organisation who plan to integrate GenAI into their loyalty programme through email and applied a snowballing approach.

1.7 Assumptions

These assumptions were made as part of this study:

a) That the participants of these studies were honest in answering the questions.
b) That the participants interviewed had a solid understanding of artificial intelligence, particularly GenAI concepts.

1.8 Chapter Outline

This section provides a summary of the six chapters and their objectives within this study. Each chapter contributes to understanding the adoption of GenAI in loyalty programmes and its potential impact on customer engagement in South Africa.

Chapter 1: Introduction

This chapter introduced the study's context, background, and problem statement. It outlines the research questions that guide the study and defines key terms used throughout the research.

Chapter 2: Literature Review and Theoretical Framework

Chapter 2 presents a comprehensive review and analysis of existing literature. It explores different schools of thought surrounding loyalty programmes, challenges, benefits, and applications of GenAI. The chapter also establishes key concepts and theoretical foundations and concludes with a conceptual framework.

Chapter 3: Research Methodology

Chapter 3 details the research methodology, including the research design, type of research, population, and sample size. It also explains the procedures for data collection, analysis, reporting, and ethical considerations.

Chapter 4: Research Findings

Chapter 4 presents the research results and findings, illustrating key outcomes with participants' verbatim quotes and a detailed analysis of the interviews conducted.

Chapter 5: Discussion of the Research Findings

Chapter 5 provides an interpretation of the results from Chapter 4 in the context of the study. It discusses how the findings align with the study's aim and research questions while also presenting the researcher's overall interpretation of the results.

Chapter 6: Conclusion and Recommendations

Chapter 6 concludes the research by summarising key findings, offering recommendations, and suggesting directions for future research.

CHAPTER 2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

This chapter provides a comprehensive review of the literature on loyalty programmes, particularly emphasising the integration of GenAI. This chapter adopts a systematised review approach, incorporating elements of the PRISMA framework to enhance transparency and replicability. It delves into various frameworks and models pertaining to technology adoption by consumers and organisations. By examining these models, the chapter sheds light on how GenAI can enhance the effectiveness and personalisation of loyalty programmes. Additionally, it explores established loyalty models, offering a detailed analysis of how traditional concepts are evolving with the advent of advanced AI technologies.

Furthermore, this chapter provides insights into the theoretical framework underpinning these discussions. It highlights the relationship between technological advancements and loyalty programme effectiveness, illustrating how generative AI can transform customer engagement and retention strategies. Through a thorough examination of existing literature, the chapter aims to bridge the gap between theory and practice, offering valuable perspectives for both researchers and practitioners interested in the future of loyalty programmes in the digital age.

2.2 Literature Review Methodology

This literature review followed a systematised approach inspired by the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework (Page et al., 2021). Although not a full systematic review, this structured method enhances transparency, replicability, and thematic coherence in identifying and synthesising existing research on the adoption of GenAI in

loyalty programmes, with a focus on enhancing customer engagement, particularly within the South African market.

2.2.1 Search Strategy

To ensure thorough coverage of the topic, searches were conducted across a diverse range of academic, institutional, government, and industry sources, both international and local.

The academic databases searched included:

- Google Scholar
- ScienceDirect (Elsevier)
- EBSCOhost (via institutional access)
- Scopus
- Web of Science
- SpringerLink
- IEEE Xplore
- SSRN (Social Science Research Network)

To ensure the inclusion of South African academic perspectives, institutional repositories were also used:

- WIReDSpace (University of the Witwatersrand)

In addition, searches were extended to:

- Grey literature from major consulting firms (e.g., McKinsey & Company, PwC, Deloitte, and Forrester)
- South African media and business platforms (e.g., Mweb, MyBroadband, BusinessTech)
- Government publications and digital policy documents, including those from the Department of Trade, Industry and Competition (DTIC), Department of Communications and Digital Technologies (DCDT), and Statistics South Africa.

Boolean logic was applied to refine keyword combinations, using terms such as:

- “Generative AI” AND “Loyalty programme”
- “AI in marketing” AND “Loyalty programmes”
- “Artificial intelligence” AND “personalisation” AND “retention”
- “South Africa” AND (“AI in loyalty programmes” OR “Loyalty programmes”)
- “South Africa” AND (“AI Adoption” OR “GenAI Adoption”)
- Generative AI Adoption AND South Africa

The search focused on works published between 2020 and 2024 to capture the most recent developments and trends in the field.

2.2.2 Inclusion and Exclusion Criteria

a. Inclusion Criteria:

- Peer-reviewed journal articles, conference papers, and reputable industry reports
- South African government publications and digital policy documents
- Postgraduate theses and dissertations from WIReDSpace
- English-language publications from 2020 to 2024
- Topics related to AI, customer engagement, loyalty programmes, and marketing.

b. Exclusion Criteria:

- Publications before 2020
- Non-English sources
- Purely technical AI papers with no business or customer engagement relevance
- Other irrelevant sources (Robotics, Healthcare, Education)

2.2.3 Study Selection Process

Due to the retrospective nature of this study and limitations in record-keeping during the initial literature search, the exact total number of records identified across all databases could not be precisely determined. The search strategy was comprehensive and included multiple academic databases, institutional repositories, and grey literature sources, as detailed in the methodology section. Following the removal of duplicates, a rigorous screening of titles and abstracts was conducted to assess relevance. This was followed by a full-text review of selected articles and reports, resulting in 26 studies included in the final synthesis.

It is important to note that despite comprehensive searches across both international and South African academic databases, government publications, and industry sources, no studies explicitly focusing on the adoption of Generative AI in loyalty programmes within the South African context were identified. This absence of region-specific research highlights a significant gap in the literature and reinforces the relevance and necessity of the present study, which seeks to address this underexplored area by investigating how Generative AI can enhance customer engagement in South African loyalty programmes.

While the precise initial retrieval number is unavailable, the screening and selection process adhered closely to the principles of the PRISMA framework, ensuring transparency, replicability, and methodological rigor within the scope of a systematised literature review.

2.2.4 Thematic Synthesis

Using thematic analysis, several dominant themes were identified:

- Loyalty programmes landscape in South Africa
- AI-enabled personalisation at scale
- Benefits and barriers of AI adoption at scale
- Content automation and rewards optimisation in marketing
- Policy alignment and digital readiness in South Africa

These themes contribute to the conceptual framing of the study and establish the foundation for identifying gaps, opportunities, and implications for applying GenAI in local loyalty strategies.

2.3 Loyalty Programmes

Loyalty programmes (LPs) are a crucial marketing strategy crafted to stimulate repeat purchases and foster long-lasting customer relationships. By offering rewards, incentives, and personalised experiences, LPs aim to not only encourage customers to return but also to deepen their engagement with the brand (Chen et al., 2021). Alshurideh et al. (2020) describe loyalty programmes as a strategic marketing tool designed to boost sales and, crucially, retain customers. Since the official inception of loyalty programmes, many researchers (Hwang et al., 2019; Tanford, 2013; Wait & Lekhuleni, 2020) have investigated these programmes, with several exploring their connection to brand loyalty in particular.

According to White Label Loyalty (2021), loyalty programmes can be traced back to the early 20th century when retailers and manufacturers first experimented with customer rewards systems. One of the earliest forms was trading stamps, where customers received stamps with purchases that could later be exchanged for goods from a catalogue. This approach not only encouraged repeat business but also fostered brand loyalty among consumers seeking to collect and redeem these stamps (White Label Loyalty, 2021).

In the 1980s, American Airlines pioneered the concept of airline frequent flyer programmes, introducing rewards based on miles flown through their AAdvantage programme launched in 1981 (De Boer & Gudmundsson, 2012). According to De Boer and Gudmundsson (2012), this innovation revolutionised customer retention strategies in the travel industry by incentivising frequent travel with the promise of future benefits. It set a precedent for other industries to adopt

similar programmes, sparking a wave of loyalty initiatives across retail, hospitality, and beyond (De Boer & Gudmundsson, 2012).

Even so, throughout their early years, LPs evolved from simple reward schemes to more sophisticated strategies to understand and influence consumer behaviour (Ward, 2024; Switchfly, 2024). It could be argued that these early developments laid the groundwork for the comprehensive data-driven approaches seen in modern loyalty programmes, where personalised incentives and targeted marketing efforts are integral to nurturing lasting customer relationships (Ward, 2024). Bergius (2023) echoed these views, noting that digitalisation and technological advancements have shifted the focus towards value creation through data insights. He also highlighted that contemporary loyalty programmes are designed to cater to individual customers, delivering personalised experiences based on a deeper understanding of their behaviour.
Rane (2023) emphasises the importance of personalisation in amplifying customer satisfaction and engagement as it is paramount in nurturing customer relationships. The same paper highlighted that in today's business environment, focusing on customer experience is crucial and that organisations are increasingly turning to AI to boost customer loyalty, satisfaction, engagement, relationships, and overall experience. AI technologies such as machine learning, natural language processing, and data analytics are transforming the way businesses understand and interact with their customers (Rane, 2023).

2.3.1 Loyalty Programmes Landscape in South Africa

Morrison et al. (2023) observed that loyalty programmes are crucial CRM tools for retaining current customers and attracting new ones. As a result, marketers in South Africa are increasingly focusing on loyalty programmes such as ClicksClub, Checkers Xtra Savings, Pick n’ Pay Smart Shopper Card, Dis-Chem Rewards, and Woolworths Rewards. These programmes provide customers with non-material benefits, such as exclusive treatment and membership privileges, in

addition to concrete rewards like discounts, prizes, and rewards for their continued purchases (Morrison et al., 2023).

According to the BrandMapp (2023) whitepaper, 76% of the population in South Africa uses loyalty programmes, a figure that remains consistent across different income levels and genders. However, the paper noted that younger consumers, particularly those under twenty-five, participate less in these programmes. The whitepaper further elaborates that approximately 30% of South Africans have increased their use of loyalty programmes compared to the previous year, indicating a growing annual interest in these programmes. It also highlights the diversity of organisations in various sectors that have already implemented loyalty programmes in South Africa, these range from retail, financial services, leisure, telecommunications, travel, restaurants/QSR, and fuel with the retail sector showing the highest usage (BrandMapp, 2023).

The BrandMapp (2023) report also indicates that in South Africa's demanding economic conditions, consumers increasingly find themselves needing multiple loyalty programmes. The report also highlights that economically active consumers participate in an average of 9.4 loyalty programmes per person, while mass-market consumers are involved in an average of 4.8 programmes.

BrandMapp (2023) highlighted that cashback is the preferred benefit for economically active consumers, while mass-market consumers value airtime and data rewards almost as much as cashback. The report also notes that wealthier consumers prefer using physical loyalty cards, whereas mass market consumers favour providing their cell phone numbers as loyalty identifiers. This suggests that consumers have varying preferences for utilising loyalty programmes and interacting with brands, with some still preferring physical cards over other methods despite technological advances. The report also ranked the top 25 most used loyalty programmes in the economically active consumers category and the mass market consumers as seen in the figure below.

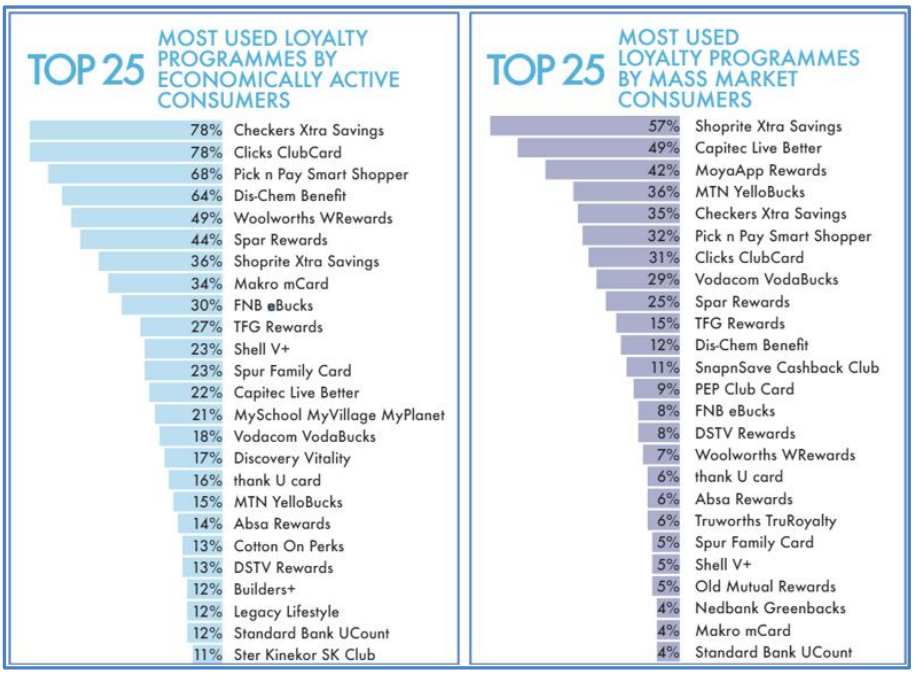

Figure 2.1 Most used loyalty programmes amongst the two categories (BrandMapp, 2023)

Figure 2.1 above indicates that Checkers Xtra Savings is the top loyalty programme among wealthier consumers, slightly surpassing Clicks ClubCard while in the mass market, Shoprite Xtra Savings is the leader, followed by Capitec Live Better.

2.4 Artificial Intelligence

Artificial Intelligence (AI) is a transformative technology that has been extensively discussed and written about by many authors and experts, becoming deeply embedded in many facets of contemporary life, impacting industries, economies, and societies (Morrison et al., 2023; Dwivedi et al., 2023; Turing, 2009; Greek, 2013). A common consensus from these authors is that AI involves creating machines capable of performing tasks usually requiring human intelligence. These tasks range from basic computations and data processing to advanced problem-solving, learning, and decision-making.

Over the decades, AI has evolved through several waves of innovation and research. Early AI research focused on symbolic AI, which involved programming machines to solve problems using logical rules and representations. However, the limitations of symbolic AI led to the emergence of new paradigms, including machine learning, which emphasises the ability of machines to learn from data and improve their performance over time (Sarker, 2022).

2.4.1 Generative Artificial Intelligence (GenAI)

Zhuhadar and Lytras (2023) added to the literature that in recent years, AI, ML, and DL have become prominent focal points in the technology industry, gaining significant attention. They further added that these techniques, which fall under the broader umbrella of AI, are utilised to automate processes, forecast outcomes, and analyse extensive datasets. There has been a dramatic increase in interest in generative AI, particularly exemplified by OpenAI's "ChatGPT." Although these areas share some similarities, they also have distinct differences. (Zhuhadar & Lytras, 2023). The figure below explores the key distinctions between AI, ML, DL, and generative AI according to (Zhuhadar & Lytras, 2023).

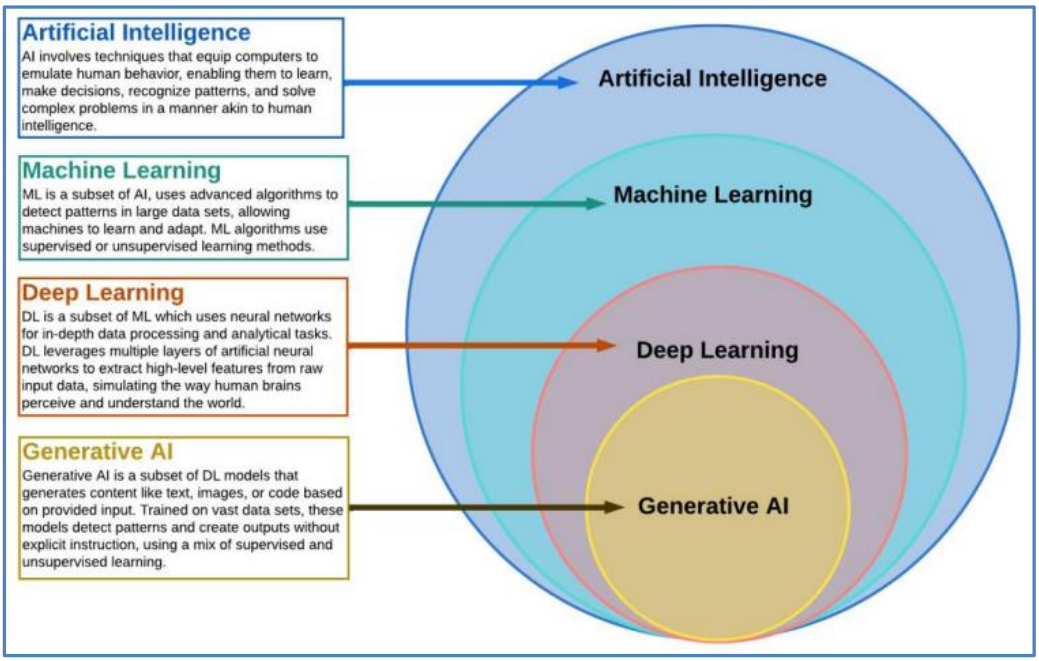

Figure 2.2 An illustration depicting generative AI, deep learning, and machine learning in artificial intelligence (Zhuhadar & Lytras, 2023)

Figure 2.2 above illustrates the relationship between Generative AI, deep learning, and machine learning within the broader field of artificial intelligence. It highlights how these advanced technologies are interconnected, with deep learning and machine learning serving as foundational components that enable the capabilities of Generative AI. The illustration emphasises the increasing sophistication of AI models and their potential applications in various industries, illustrating how these technologies drive innovation in areas such as data processing, automation, and decision-making.

Generative AI finds diverse applications, from crafting personalised content to optimising business operations, harnessing its capacity to create innovative and contextually appropriate outputs (Zhuhadar & Lytras, 2023b); (Lv, 2023); (Ooi et al., 2023). According to Lv (2023), generative AI is a form of artificial intelligence that can autonomously produce original content such as text, images, code, audio, and video. Unlike traditional AI systems that follow predetermined rules and patterns, generative AI uses advanced models to learn from data and create

outputs that often resemble human-made content (Kılınç & Keçecioğlu, 2024). Key components include Generative Adversarial Networks (GANs), which have a generator and discriminator competing to produce realistic data, and Variational Autoencoders (VAEs), which use probabilistic models to generate new data points with smooth transitions and variations (Kılınç & Keçecioğlu, 2024; Bengesi et al., 2024; Gupta et al., 2024).

In November 2022, Open AI, backed by Microsoft, publicly released the prototype of ChatGPT, a ground-breaking generative AI chatbot. Leveraging advanced AI language models, ChatGPT quickly gained widespread attention for its ability to comprehend and respond naturally to human language. Within just two months, it achieved an impressive milestone of one hundred million active users. This rapid growth highlights its significant impact and positions it among the fastest-growing innovations in recent times. (Gupta et al., 2024). The same release of GPT-3.5 in 2022 was the first tool to ever reach a million users in just 5 days at the time, ahead of Instagram which took 2.5 months in 2010 in this digital era (Hawley, 2023).

In their recent study, Gupta et al. (2024) discussed the growing enthusiasm for Large Language Models (LLMs) such as ChatGPT, Bard, and Claude. They also highlighted projections suggesting that the ascent of GenAI could lead to a $7 trillion boost in gross domestic product globally and a 1.5% increase in productivity growth over the next decade. Furthermore, they emphasised that generative AI provides extensive advantages to businesses, including cost reduction and increased workforce efficiency through automating tasks that traditionally require manual.

2.5 Adoption Rate of Generative AI

In 2023, the world became aware of generative AI (gen AI), but it was in 2024 that organisations started to harness its potential and see real business benefits (McKinsey, 2024). Gartner's report released statistics from a poll from more than

2500 executives in 2023 showing that the primary focus of generative AI initiatives within their organisations was customer experience and retention followed by growth (Gartner, 2023).

Looking at the South African context, Goldstuck et al., (2024) highlighted in their roadmap that a survey was done with IT decision-makers at one hundred large enterprises in South Africa that about 9 out of 10 respondents are on the journey of using generative AI in their operations. Another survey by Job (2023) conducted with organisation executives and middle management leaders in South Africa revealed that their organisations are familiar with generative AI technologies and that they were mostly used for:

- 64 % use it to generate content.
- 62% use it to perform research.
- 56% use it for supporting and solving customer queries.
- 49% use it for creative tasks.
- While 43% use it for coding and writing scripts (Job, 2023)

These examples below give context into the industry and utilisation of generative AI in early adopters:
Pivotal Sources (2024) indicates that Comviva, a Tech Mahindra company and leader in customer experience and data monetisation, is enhancing customer loyalty programmes using its GenAI-powered next-generation MobiLytix™ rewards system. They also note that delivering the right message at the right time across various channels can improve customer experience, increase lifetime value, and drive revenue growth. This approach is backed by MobiLytix's proven success with over three hundred million users (Pivotal Sources, 2024).

According to Business Wire (2024), Exchange Solutions has introduced generative AI features in its loyalty platform. Key benefits include the Audience Recommender, which simplifies audience targeting with natural language inputs and large language models, and Smart Help, which offers instant AI-driven

assistance for using the SaaS loyalty console. Future AI features will focus on new methods for accessing loyalty data and member insights.

In South Africa, Ndlovu (2024), mentioned early adopters of generative AI (Microsoft generative AI toolset) such as the legal firm Legal Interact, the software development company Derivco, and the retailer Spar, noting that these organisations are experiencing the advantages of utilising the technology.

2.6 Generative AI in Loyalty Programmes

As highlighted by Chen et al., (2021) Loyalty programmes represent the pinnacle of marketing tools and strategies for businesses aiming to enhance customer engagement and retention. Chui et al. (2023) highlighted that generative AI has swiftly become integral to marketing and sales, where its ability to personalise communications on a large scale is crucial. This is key in loyalty programmes as the technology is good at crafting tailored messages based on individual customer interests, preferences, and behaviours (Chui et al., 2023). Additionally, its capability to produce initial drafts for various marketing materials, including brand advertisements, headlines, slogans, social media content, and product descriptions is crucial to businesses. They also highlighted concerns about the implementation of generative AI in marketing, pointing out potential risks such as copyright infringement, violations of intellectual property rights, and biases stemming from the data used to train the models.

2.6.1 Benefits of integrating GenAI in marketing/loyalty programmes

According to Chui et al., (2023), integrating generative AI into loyalty programmes offer organisations various benefits ranging from:

- Efficient and effective content creation: Streamlines content creation, ensures brand consistency, and enables rapid translation and personalisation of marketing campaigns. It enhances personalised

marketing across segments and regions, boosting customer engagement and retention beyond traditional methods.

- Enhanced use of data: Aids in the integration of various data sources, employing territorial performance data, customer feedback, and behavioural insights for data-driven initiatives such as targeted customer profiling and channel optimisation. In addition, they analyse unstructured data to find trends, key drivers, and market prospects, which helps in making well-informed marketing decisions.
- Search Engen Optimisation: Generative AI enhances technical SEO to boost conversion rates and reduce costs, aids in creating SEO-focused digital content, and efficiently distributes targeted content for optimised marketing and sales outcomes.
- Product discovery and search personalisation: Personalises product discovery using text, images, and speech inputs, tailors' recommendations and descriptions based on customer profiles, and enhances e-commerce sales while boosting website conversion rates (Chui et al., 2023).

Kushnarevych (2024) highlighted that today, as customer data becomes more abundant, there is a growing need for advanced methods of analysis and programme optimisation. They further add that AI has attracted considerable focus in recent years, yet its intersection with loyalty programmes remains underexplored. They further highlighted key areas where AI can be integrated within loyalty programmes and potential benefits below (Kushnarevych,2024):

- Personalisation: AI optimises loyalty programmes by analysing customer data like purchase history, browsing behaviour, and interactions to predict preferences, customise rewards, and build stronger customer relationships.
- Product Recommendations: AI-driven data analysis aids brands in suggesting relevant products or services proactively, leveraging insights to streamline customer decision-making and boost satisfaction.

- Dynamic Tier Structures: AI empowers brands to adjust loyalty programme tiers based on customer preferences, offering tailored benefits such as targeted coupons and exclusive rewards to meet diverse customer needs effectively.
- Targeted Communication: AI personalises communications such as emails, ensuring messages highlight specific rewards and benefits aligned with each customer's profile. This tailored approach enhances natural and engaging interactions between customers and brands (Kushnarevych, 2024).

Yoo and Piscarac (2023) mention that generative AI enables marketers to quickly generate high-quality, relevant content at scale, due to its ability to design hyper-personalised ad campaigns. This level of customisation enhances customer engagement, improves conversion rates, and drives sustained revenue growth for advertisers (Yoo & Piscarac, 2023). Kshetri et al., (2024) share the same sentiments and add that digital technologies enhance customer experience by enabling personalised, timely, and relevant communications, which boost engagement with products and brands, ultimately improving customer loyalty and firm performance. They emphasise that generative AI, with its ability to create human-like and customisable content, has an even greater impact on marketing processes and outcomes compared to previous digital technologies.

2.6.2 Challenges associated with generative AI that could apply to loyalty programmes.

Based on the literature reviewed, the authors have pointed out the challenges of integrating and adopting generative AI into daily operations. These challenges are likely applicable to integrating generative AI into loyalty programmes as well, indicating that the discussed challenges primarily pertain to general integration issues.

- **Ethical and Privacy Concerns**
    - LLMs and image diffusion models like DALL-E 2, Imagen, and Stable Diffusion can replicate personally identifiable information and images from their training data, raising privacy and copyright concerns (Kenthapadi et al., 2023).
    - Increasing fidelity in data synthesised by generative models makes it difficult to distinguish between real and generated content, raising concerns about misinformation propagation and deepfakes (Mhlanga, 2024).
    - Addressing these challenges involves developing algorithms to detect and label synthetic data, often through watermarking techniques to embed detectable markers without compromising sample quality (Manduchi et al., 2024; Kenthapadi et al., 2023; Mhlanga, 2024).
    - Compliance with data protection laws such as the California Consumer Privacy Act (CCPA), General Data Protection Regulation (GDPR), and the UK's Data Protection Act 2018 is essential to mitigate privacy risks associated with generative AI (Ooi et al., 2023).

- **Bias and Fairness**
    - Generative models trained on large, internet-sourced datasets can perpetuate societal biases despite efforts to remove toxic content during preprocessing (Manduchi et al., 2024).
    - Biases can manifest in outputs that are discriminatory or exclusionary based on gender, ethnicity, and religion, particularly in multimodal models (Manduchi et al., 2024).

- **Legal and Regulatory Compliance**
    - Rapid advancements in AI technology have outpaced the development of regulatory frameworks, highlighting the need for

comprehensive policies to govern AI's ethical and societal impacts (Mhlanga, 2024).
    - Proposed frameworks include hybrid authorship and custodianship models to address ownership and accountability in AI-generated intellectual property (Mhlanga, 2024).

- **Technological and Talent Challenges**
    - The computational demands of generative AI pose challenges for smaller organisations, hindering effective scaling (Bengesi et al., 2024).
    - Integrating generative AI with existing IT infrastructure requires significant technical expertise to ensure compatibility and seamless operation (Klaus & Oyeleke, 2024).
    - Upskilling the workforce is crucial to manage and operate AI-integrated systems effectively, necessitating training programmes and initiatives (Klaus & Oyeleke, 2024).

Kshetri et al., (2024) also highlighted concerns about the costs involved which may include initial setup, ongoing maintenance, and updates. They further highlighted the concern with data security and privacy, especially concerning sensitive customer data used for personalised content creation. Upskilling the workforce and adapting workflows to utilise AI effectively also incur immediate costs but promise long-term efficiency gains (Kshetri et al., 2024).

Yoo and Piscarac (2023) also highlight the challenges of integrating generative AI into the daily operations of an organisation, emphasising the need for collaboration among marketers, data scientists, and engineers, as well as continuous learning. They also highlight that addressing ethical concerns such as data privacy and misinformation requires a strong framework and AI literacy to fully leverage AI's potential, ensure reliability, and maintain customer trust (Yoo & Piscarac, 2023).

2.7 Ethical Consideration and Societal Impact in South Africa

Many authors have emphasised the importance of looking into ethical considerations when implementing generative AI solutions into marketing and or loyalty programmes (Gupta et al., 2024; Bhattarai, 2023; Kenthapadi et al., 2023). Gupta et al. (2024) emphasised that these considerations are essential when adopting generative AI in marketing, particularly concerning transparency in AI-generated content and the protection of personal data. They provided an example with ChatGPT, stating that businesses must ensure their use of ChatGPT aligns with customer expectations and safeguards personal information. They also pointed out the potential risk that marketing efforts driven by ChatGPT might unintentionally perpetuate biases and stereotypes, which could negatively affect marginalized or vulnerable groups, as AI's accuracy depends on the quality of the data it is trained with.

To mitigate these risks, businesses must ensure algorithms are fair and unbiased and consider the moral implications of AI use in marketing (Gupta et al., 2024). Examples of these measures like policy implications may include revisions to data protection laws and the establishment of standards for ethical AI use in marketing. As technology advances, AI's role in marketing will likely grow, enhancing customer engagement but requiring vigilant ethical oversight (Gupta et al., 2024). Mhlanga (2024) underscored the problem of AI technology advancing more rapidly than the development of regulatory frameworks, stressing the need for detailed policies to govern AI's ethical and societal impacts. However, businesses must consider the impact this technology will have on consumers.

2.7.1 South African government’s involvement in AI policies

In the South African context, Mashishi and Gungubele (2023) noted that the South African government and other organisations are still finalising policies regarding the adoption and use of generative AI. One could argue that the South African government is playing catch-up with technology in terms of legal frameworks; however, this is a common situation in many other countries as well, given the rapid pace at which technology is advancing.

In October 2023, the South African government's Department of Communications and Digital Technologies (2023) published a draft of the National AI Government Summit Discussion Document, marking a pivotal step in the country's journey toward establishing a comprehensive National AI Plan. This draft aimed to provide a strategic framework for integrating AI into key sectors such as education, healthcare, energy, and mobility, while addressing the ethical and governance challenges associated with AI adoption. By aligning with global trends and incorporating input from stakeholders, the document proposed governance structures and regulatory experiments to guide the responsible use of AI. The draft emphasised principles of fairness, accountability, and inclusivity, signalling the government's commitment to fostering an AI ecosystem that balances innovation with societal well-being. This initiative underscored South Africa's intention to remain competitive in the global AI landscape while addressing local socio-economic priorities (Department of Communications and Digital Technologies, 2023).

As highlighted in the rationale in Chapter 1, the South African government has since made progress in this aspect by publishing the National AI Policy framework which will guide future policies. This National AI Policy Framework aims to create a robust foundation for the ethical and responsible deployment of AI technologies in South Africa. By prioritising principles such as fairness, transparency, accountability, and inclusivity, the framework seeks to mitigate biases and promote equitable outcomes in AI applications. This is particularly significant for generative AI, where unintended biases in algorithms can perpetuate inequalities (Department of Communications and Digital Technologies, 2024). The framework's guidelines are instrumental in addressing governance around ethical concerns, ensuring that organisations adopt AI technologies in ways that respect user privacy, promote trust, and align with South Africa's socio-economic goals. For loyalty programmes, this provides a vital governance structure to guide the development and deployment of generative AI solutions, helping organisations

navigate ethical challenges while optimising personalisation for diverse customer demographics.

By embedding ethical considerations into the policy framework, the South African government not only facilitates innovation but also underscores the importance of reducing biases, ensuring fairness, and building public confidence in AI-driven systems.

2.8 Theoretical Framework

The study employed the Technology-Organisation-Environment (TOE) Framework as a theoretical foundation to assess the adoption of generative AI in loyalty programmes within the South African context. Introduced by DePietro et al. in 1990, the TOE framework provides a comprehensive structure for understanding the factors influencing technology adoption. It comprises three core elements which Gupta et al., (2024) unpack below:

- Technological Factors: These include the nature of the technology and its perceived superiority over alternatives. Generative AI adoption involves evaluating the capabilities of the AI model, efficiency, effectiveness, and innovative approaches in engaging with customers, generating content, and addressing challenges.
- Organisational Factors: These pertain to the internal context of the organisation, such as its culture, structure, size, and resources. Adopting generative AI involves assessing the current IT infrastructure, openness to innovation, and the capacity to train employees for seamless integration.
- Environmental Factors: These involve external pressures like customer demands, competitive pressures, regulatory considerations, and ethical concerns. For generative AI, this includes understanding customer expectations for personalised interactions and the industry's competitive landscape.

- In conclusion, the TOE framework enables businesses to systematically assess the technological, organisational, and environmental factors that influence the adoption of technologies such as generative AI (Gupta et al., 2024).

2.9 Proposed Conceptual Framework

TOE is widely used to classify factors influencing the adoption of technological innovations. While the TOE model offers a robust foundation for evaluating technology adoption, it has been critiqued for its limited explanatory depth and lack of domain specificity (Baker, 2012). To address these limitations, the framework in this study has been adapted to incorporate loyalty programme-specific constructs that are directly relevant to the adoption of GenAI technologies in enhancing customer experience - particularly within the South African context.

In addition to the traditional three dimensions of TOE - Technology, Organisation, and Environment - a fourth element, Current Knowledge and Practices, has been introduced. This dimension grounds the theoretical model in real-world experiences, ensuring that it reflects the operational realities of loyalty programmes as they are currently designed, managed, and evaluated. The inclusion of this component enhances the contextual relevance of the framework by integrating practitioner insights and industry readiness alongside academic constructs.

The resulting framework serves multiple purposes: it provides a structured lens for selecting, categorising, and analysing literature in this systematised review, and it guides the interpretation of findings through a context-sensitive model. It also supports a more nuanced understanding of how organisations can strategically approach the adoption of GenAI technologies in their loyalty strategies. The figure below presents the resulting conceptual framework, which guided the data extraction and analysis for this systematised literature review.

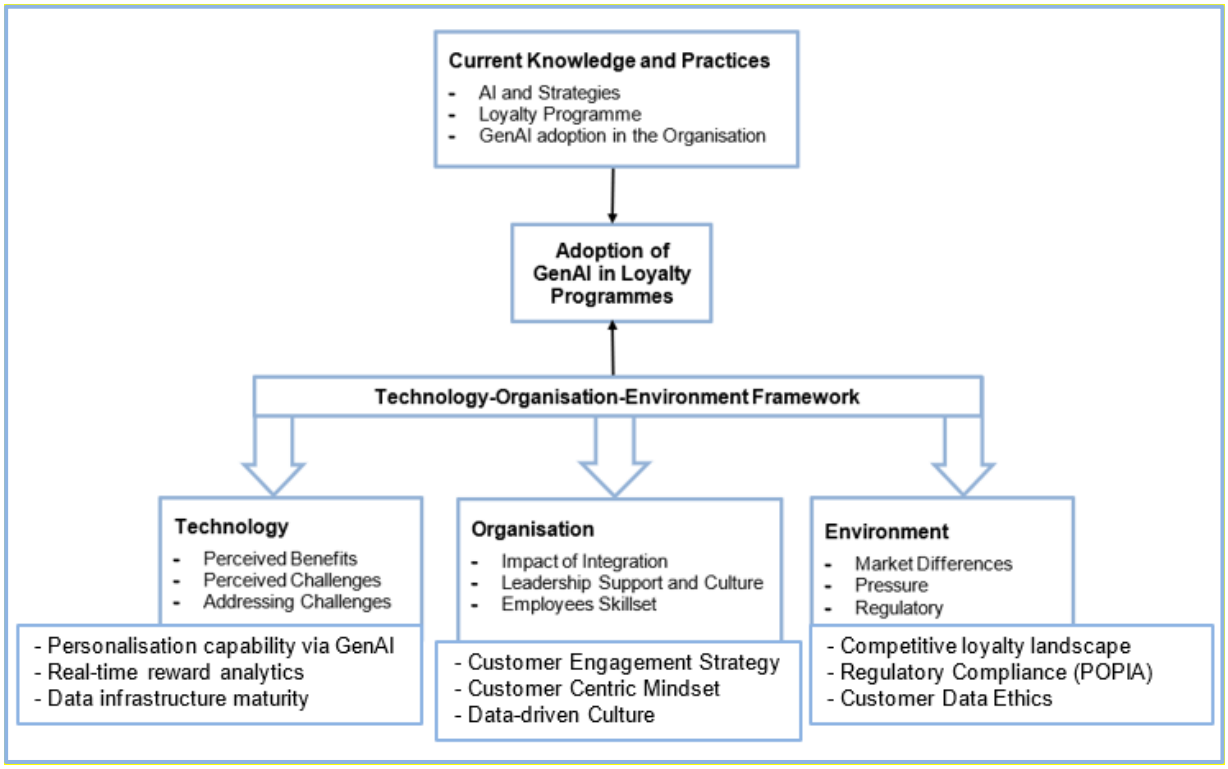

Figure 2.3 Conceptual Framework for evaluating the adoption for GenAI in LP

Figure 2.3 illustrates the adapted conceptual framework, which builds on the traditional TOE model by incorporating domain-specific constructs relevant to loyalty programmes, as well as the additional knowledge-driven dimension. The three TOE elements have been enriched to include elements relating for loyalty programmes like personalisation, real time reward analytics, data driven culture, customer engagement strategies and customer data ethics. This comprehensive framework supports a richer exploration of how organisations can strategically integrate GenAI technologies to enhance customer experience through loyalty initiatives.

2.10 Identified Research Gaps

Despite the increasing importance of GenAI in marketing and customer experience, several gaps remain in the literature that this study aims to address. Firstly, although generative AI's capabilities for content creation and personalisation are well documented, there is limited research focused specifically on how GenAI can be adopted to customise loyalty programme rewards and incentives for individual customers. Current studies often discuss theoretical potential without exploring practical adoption frameworks or empirical insights, particularly in the context of loyalty programmes. This gap is more pronounced when considering industry-specific and regional differences, such as those found in South Africa.

Secondly, while general benefits of GenAI in marketing, such as enhanced efficiency and personalised communication, have been highlighted, research examining the distinct benefits and challenges of integrating GenAI within loyalty programmes remains scarce. Challenges such as technical integration, cost implications, and workforce readiness have yet to be thoroughly explored in this context. Understanding these factors is critical to enabling organisations to leverage generative AI effectively in loyalty programme management and optimisation.

Lastly, although ethical considerations and societal impacts of GenAI have been raised in broader AI and marketing literature, there is a lack of focused inquiry into the ethical and societal implications of using generative AI in loyalty programmes within the South African context. Given South Africa's unique socio-economic environment and evolving AI regulatory frameworks, it is important to investigate how concerns around privacy, bias, fairness, and governance specifically influence the deployment of generative AI in loyalty initiatives locally. This study seeks to contribute to bridging this gap by examining these dimensions in detail.

By addressing these gaps, this research aims to provide actionable insights for both practitioners and policymakers on the adoption, benefits, challenges, and ethical deployment of generative AI in loyalty programmes, with a particular focus on South Africa.

2.11 Conclusion

This chapter presented the literature review, starting with a definition of artificial intelligence, focusing on generative AI and related technologies, and examining their opportunities and challenges. It explored the adoption of generative AI in loyalty programmes, highlighting key benefits, challenges, and emerging opportunities. The chapter also addressed the South African government's role in developing legal frameworks and policies to govern AI solutions locally.

A systematised literature review approach, informed by PRISMA guidelines, was applied to ensure a structured and transparent study selection, though it was not a full systematic review. This helped identify critical gaps, particularly the limited research on how generative AI can customise loyalty rewards, the practical benefits and challenges of integration, and ethical and societal implications in South Africa.

The chapter concludes by adopting the Technology Organisation Environment (TOE) framework as the theoretical lens, providing a comprehensive view of technological, organisational, and environmental factors affecting generative AI adoption in loyalty programmes.

CHAPTER 3. RESEARCH METHODOLOGY

3.1 Introduction

This chapter offered a comprehensive overview of the research design and methodologies employed in the study. It details the methods utilised for data collection and sampling and elaborates on the procedures for analysing and interpreting the data. Furthermore, the chapter examined the strategies implemented to ensure the trustworthiness and reliability of the research instruments, thereby providing a thorough understanding of the methodological framework that underpinned the study.

3.2 Overview of the Research Methodology

To provide a clear understanding of the methodological structure guiding this study, a visual representation of the research methodology is presented below Figure 3.1.

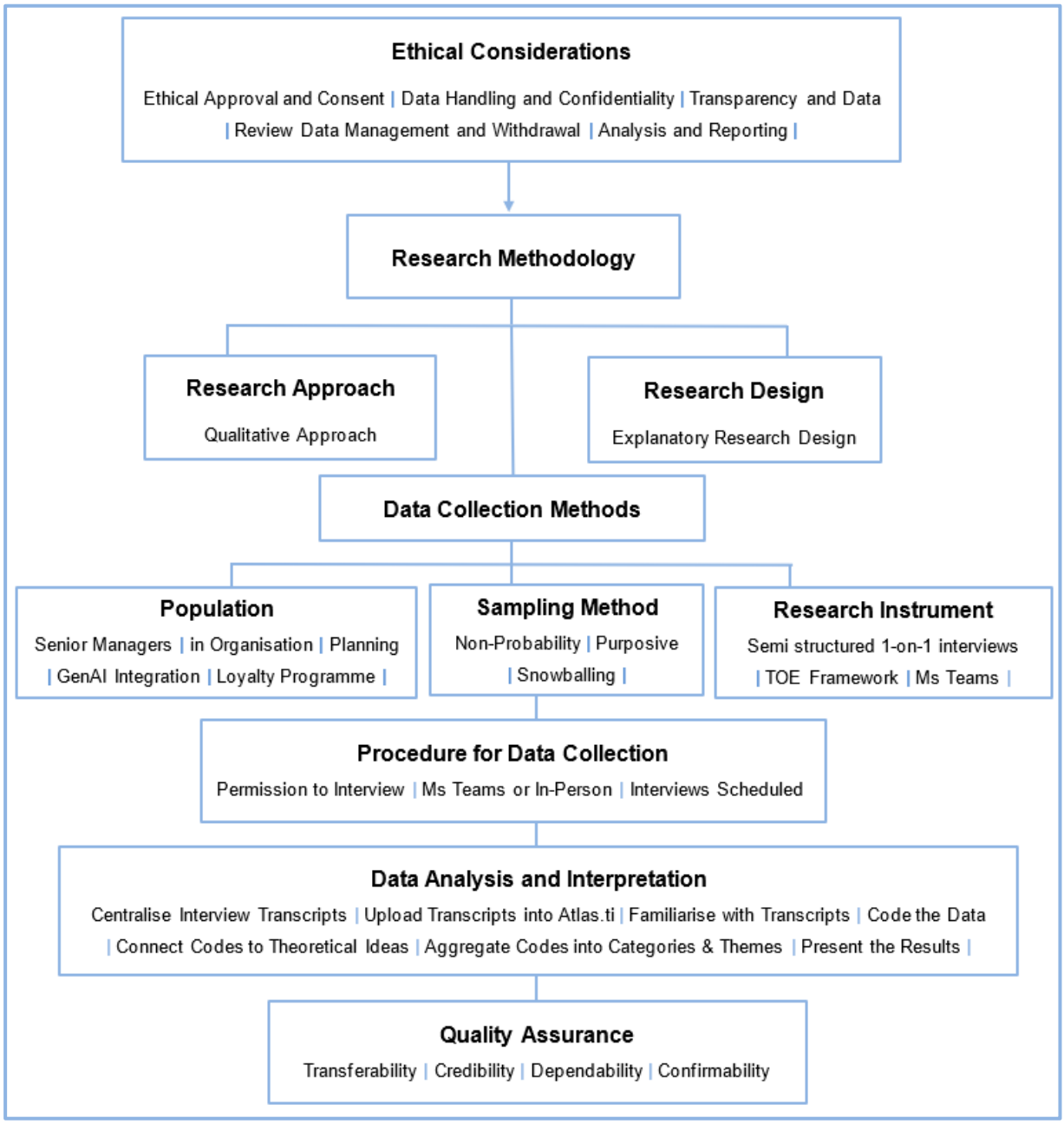

Figure 3.1 Research Methodology Overview

The above graphic diagram outlines the sequential components of the research process, including the research approach, design, data collection methods, sampling strategies, research instruments, procedures for data collection, analysis techniques, and ethical considerations. The visual serves as a roadmap

for the chapter and illustrates how each element contributes to addressing the research questions and achieving the study's objectives.

3.3 Research Approach

Choy (2014) proposes the model below to evaluate the strengths and weaknesses of both qualitative and quantitative research. This model helps in understanding the critical aspects of each methodology as illustrated below:

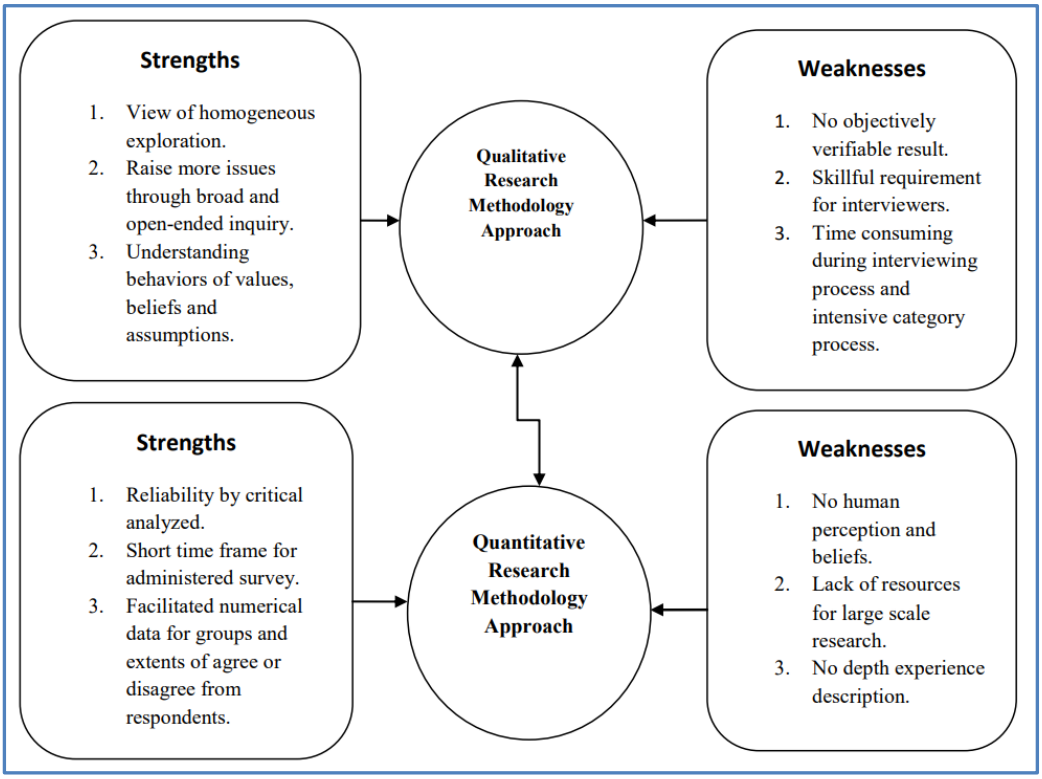

Figure 3.2 The model of strengths and weaknesses of qualitative and quantitative research methodologies (Choy, 2014)

Figure 3.2 above illustrates how Choy (2014) compares the weaknesses and strengths of quantitative and qualitative research methods. It highlights the depth and context provided by qualitative research versus the statistical analysis and generalizability of quantitative research, emphasising the complementary nature of both approaches.

Leech and Onwuegbuzie (2007) emphasise that a fundamental principle of qualitative research is to achieve a profound understanding of individuals' experiences. In light of the exploratory nature of this study, which aimed to gather detailed insights from key organisational stakeholders on the adoption of generative AI in South African loyalty programmes, a qualitative approach was particularly well-suited.

This approach facilitated an in-depth exploration of participants' perspectives and experiences regarding loyalty programmes and the integration of generative AI. By employing open-ended interviews with key decision-makers within this organisation, the study captured nuanced and comprehensive data, allowing for a richer understanding of how generative AI is being integrated into loyalty programmes.

3.4 Research Design

Saunders et al. (2016) define research design as a strategic framework that outlines the methods a researcher will use to collect and analyse data. Similarly, Schindler (2019) describes it as a framework for gathering data that satisfies objectives and responds to questions, highlighting its role in guiding methodological procedures.

This study employed an explanatory research design approach. According to Saunders et al. (2016), an explanatory qualitative research design involves the collection and analysis of qualitative data to gain insights into the meanings, experiences, and perspectives related to a particular phenomenon.

This approach was well-suited as it allowed participants to address questions related to the

1. "What? – the obstacles of integrating generative AI into loyalty programmes",

2. "Why? – benefits of integrating generative AI into loyalty programmes",
3. "How? – ethical considerations and societal impact of using generative AI in loyalty programmes".

3.5 Data Collection Methods

Paradis et al. (2016) emphasise that data collection methods significantly impact how information is gathered and analysed, shaping the insights produced. They identify five key methods, each with distinct advantages and limitations:

- Surveys: Utilise open-ended questions to capture perceptions and knowledge from a predefined sample, analysed qualitatively.
- Interviews: Whether structured or unstructured, interviews provide in-depth individual perspectives and are ideal for capturing detailed narratives and generating thematic insights, although they require more resources and training.
- Focus Groups: Explore group dynamics and diverse viewpoints, with ideal group sizes of 8 to 10 participants.
- Observations: Offer insights into actual behaviours and interactions in situ, rather than relying on self-reports.
- Textual or Content Analysis: Analyses written materials to investigate institutional views or contextualise findings, with coding schemes tailored to research questions (Paradis et al., 2016).

For this study, semi-structured 1-on-1 interviews were selected as the preferred method because they enabled the researcher to probe and prompt further with questions, thereby gathering more detailed data and insights about AI adoption in loyalty programmes. This approach reduced the need for iterative follow-ups common in other data collection methods by allowing for immediate feedback and clarification.

3.6 Population and Sample

Meadows (2003) asserts that in qualitative research, which aims to explore a range of behaviours and attitudes concerning a specific topic, it is crucial to purposively select participants for in-depth interviews. This method ensured a comprehensive representation of diverse views and experiences across different sub-groups, facilitating the identification and exploration of variations in perspectives and experiences.

3.6.1 Population

The target population for this study comprised senior management within a South African organisation that operates loyalty programmes and is planning to integrate generative AI into these. This focus ensured that the participants possessed relevant insights and decision-making authority regarding the use of generative AI in enhancing loyalty programmes.

3.6.2 Sample and Sampling Method

Acharya (2013) defines non-probability sampling as a method where the probability of selecting any given subject is unknown. Common techniques within this category include convenience sampling and snowball sampling to name a few. Snowball sampling starts with selecting initial participants through either probability or non-probability techniques, who then refer additional individuals, thereby expanding the sample through their recommendations.

A non-probability sampling approach incorporating purposive and snowball sampling methods was adopted. This approach was chosen because the researcher was purposefully targeting participants who are key decision-makers within their organisations as this will aid in providing in-depth and relevant input to the study. Hill et al. (2005) recommend that qualitative research should include 8 to 15 participants, while Fusch and Ness (2015) argue that data saturation can be achieved with as few as six interviews. Data saturation is reached when the

collected information is sufficiently comprehensive, and no new insights are being uncovered (Fusch & Ness, 2015).

The participants for this study were drawn from an organisation in South Africa that is planning to implement generative AI within their loyalty programmes. The researcher targeted twelve senior management professionals in that organisation. The researcher reached out to participants via contact's email address who met the criteria and sought permission to interview them. Upon acceptance from the participants, the researcher scheduled interviews using Microsoft Teams with the twelve participants.

Below is the explanation of the roles selected and the rationale for their selection: **Product Owners** are key agile team members responsible for defining the vision and goals of a product and ensuring that it delivers maximum value to customers and the business. They act as a bridge between business stakeholders and the development team, prioritising and refining the product backlog to align with the company's strategic objectives. Product Owners were selected for their hands-on involvement in defining and delivering customer-focused solutions. Their role provides insights into how GenAI can be operationalised within LPs, ensuring it meets customer and business needs. They also offer a practical perspective on challenges such as backlog prioritisation, feature feasibility, and collaboration between business and technical teams.

Executive Heads are senior leaders responsible for overseeing a major business unit or functional area within an organisation. They focus on aligning their division's strategic objectives with the overall organisational goals. Their role involves high-level decision-making, driving business performance, and ensuring that initiatives and projects are aligned with the company's vision and market needs. Executive Heads were chosen for their strategic oversight and ability to align organisational priorities with innovative technologies like GenAI. Their leadership role provides insights into the business drivers, high-level challenges,

and strategic considerations of adopting AI within LPs. They also influence decision-making and resource allocation, making their perspective critical to understanding organisational readiness.

Chapter Leads are senior practitioners and managers responsible for developing the expertise of individuals within their chapter (a group of specialists in a specific field, such as software development, testing, or data analysis). They ensure consistency in practices, foster skill development, and provide guidance, while also contributing hands-on to the delivery of work within their agile team or squad. Chapter Leads were chosen for their deep technical expertise and focus on consistency and skill development within their disciplines. They provide valuable insights into the technical feasibility of GenAI adoption, including infrastructure, talent capabilities, and best practices. Their operational knowledge highlights practical challenges and enablers of implementing GenAI solutions effectively within agile teams.

Managing Executives are senior leaders responsible for overseeing and driving the success of a functional area, often with a focus on integrating strategy and execution across business and technology domains. They are accountable for achieving key objectives, such as operational excellence, financial performance, and innovation. Managing Executives were included for their ability to bridge strategy and execution, particularly in aligning business goals with technology initiatives. Their perspective is vital in understanding how GenAI adoption can be integrated into broader organisational strategies while ensuring operational excellence and scalability. They also provide insights into the financial and organisational impacts of implementing GenAI.

3.7 The Research Instrument

Semi-structured interviews were used as the primary method for data collection in alignment with the Technology-Organisation-Environment (TOE) Framework, to investigate the adoption of generative AI in loyalty programmes within that

organisation. The flexibility of semi-structured interviews allowed for a thorough examination of participants' perspectives and the opportunity for follow-up questions to gain deeper insights. These interviews were conducted virtually to enable participation from senior management.

The survey instrument was developed to align with the constructs of the TOE framework, with additional contextual elements drawn from the loyalty programme domain. To ensure conceptual validity, survey items were informed by prior literature on technology adoption (e.g., Oliveira & Martins, 2011; Zhu & Kraemer, 2005) and studies examining loyalty programme implementation (e.g., Melnyk & Bijmolt, 2015).

For each TOE dimension, relevant factors were identified in the literature and translated into question items. For example, technological factors such as data infrastructure maturity and AI integration capability were drawn from studies on digital readiness, while organisational items such as leadership support and data-driven culture were informed by research on strategic alignment and innovation adoption. Environmental items, including regulatory pressure and competitive intensity, were based on external factors commonly cited in the TOE literature.

Where validated items were available, these were adapted for the GenAI and loyalty programme context. In the absence of direct parallels, new items were crafted with reference to both theoretical constructs and practitioner insights gathered during preliminary industry scans.

The interview guide was pre-tested on two colleagues to ensure the clarity and effectiveness of the questions. The guide was structured into three primary thematic sections: demographic information, participants' knowledge of AI and the organisation’s current practices, and familiarity with the TOE framework. The latter section was further divided into sub-sections focusing on Technology, Organisation, and Environment. These themes were designed to direct the interviews and explore how technological, organisational, and environmental factors influence the integration of generative AI into loyalty programmes.

Participants received the interview guide before their sessions to aid in preparation and provide context for their responses. Data collection involved recordings via Microsoft Teams. This methodology aimed to gather detailed and nuanced insights into the adoption process, enhancing the understanding of factors affecting the implementation of generative AI in loyalty programmes.

3.8 Procedure for Data Collection

Antwi and Hamza (2015) note that interviews are among the most commonly employed data collection methods in qualitative research. The researcher requested permission to conduct interviews with selected participants via email. Upon receiving approval, the researcher provided these participants with an interview guide to assist in their preparation. Participants had the option to conduct the interviews either through online platforms such as Microsoft Teams or Zoom, or in person – all participants chose to conduct the interviews via Microsoft Teams. The researcher then scheduled the interviews with all twelve participants using Microsoft Teams.

3.9 Data Analysis Strategies and Interpretation

Hill et al. (2005) highlighted that data analysis involves three key steps: first, segmenting interview data into domains or topics; second, summarising the core ideas within these domains; and third, performing cross-analysis to identify common themes across participants by categorising the core ideas.

The analysis employed a phased approach, beginning with the TOE Framework analysis and progressing to thematic analysis. According to Lester et al. (2020), thematic analysis is a robust foundation for qualitative studies due to its theoretical flexibility, allowing researchers across various disciplines to produce meaningful, theory-driven, or data-driven findings.

Lester et al. (2020) recommend the following summarised steps for conducting a thematic analysis:

- Centralise all data and convert them to electronic formats with a structured naming system for easy access and import into analysis software.
- Transcribe the data verbatim to ensure familiarity.
- Review the data to identify initial ideas and gaps, writing memos to capture reflections and interpretations.
- Assign descriptive codes in phases: initially to identify key statements, then refine for conceptual relevance, and finally connect to theoretical ideas.
- Aggregate related codes into categories and themes, ensuring transparency by mapping the entire process to clarify analytic choices.

This study aimed to investigate the adoption of generative AI in loyalty programmes within a South African organisation, to identify patterns that can inform readiness and provide insights for other organisations. Therefore, thematic analysis was well-suited for this research as the researcher intended to follow the same approach.

3.10 Quality Assurance

To ensure rigor in qualitative research, Bitsch (2005) emphasises the importance of credibility, transferability, dependability, and confirmability as key evaluation criteria, originally proposed by Lincoln and Guba (1985). These elements contribute to the trustworthiness of research findings by enhancing transparency and methodological consistency.

3.10.1 Transferability

Bitsch (2005) defines transferability as the extent to which research findings can be applied to contexts other than the one in which they were obtained, or to different subjects. In the context of this study, while the findings may be relevant

within South Africa, their transferability to other countries or global contexts may be constrained due to differing factors influencing the adoption of generative AI across various organisations and nations.

3.10.2 Credibility

In qualitative research, credibility is achieved by ensuring that the researcher's descriptions accurately reflect participants' perspectives rather than pursuing an objective reality (Bitsch, 2005). This study utilised the two techniques below to enhance credibility:

- Peer Debriefing: The researcher gathered feedback and review from their fellow researchers, students, and supervisor to enhance the study's quality and credibility.
- Person triangulation: The researcher interviewed different people to compare perspectives.

3.10.3 Dependability

Dependability, similar to reliability, concerns the consistency of findings over time, evaluating whether results would be stable if the study were replicated with similar participants and in a comparable context (Bitsch, 2005). While qualitative research often involves evolving designs and findings, it is crucial for researchers to meticulously document and track changes to uphold dependability. In this study, comprehensive records, including notes, documentation, and recordings, will be maintained to provide an audit trail and ensure that data remains reliable for future reference.

3.10.4 Confirmability

Bitsch (2005) emphasises that confirmability aims to eliminate researcher bias by ensuring that data and findings are based on the subjects and their contexts. The research process should be objective and follow proper methods to ensure that the results are not influenced by the researcher's personal biases or political views (Bitsch, 2005).

The researcher ensured that they anonymise the data so that the participants can share their views and perspectives without feeling prejudiced. The researcher also kept an audit trail and journal of the notes taken during the interviews to review while performing the analysis of the data. The researcher made the data collected available to the researcher's supervisor for review to ensure confirmability.

3.11 Ethical Considerations

Ensuring ethical conduct in research is a critical responsibility of the researcher (Schindler, 2019). To uphold ethical standards, the following procedures were implemented:

- Ethical Approval and Consent: Ethical clearance was obtained from the University of the Witwatersrand Ethics Committee, and informed consent were secured from all participants before their participation.
- The researcher secured signed consent forms from the participants.
- Data Handling and Confidentiality: Data was centralised, converted to electronic formats with a structured naming system, and stored securely on a password-protected laptop accessible only to the researcher. All responses were anonymised to protect privacy.
- Transparency and Data Review: The research objectives were communicated to ensure transparency. During the analysis, initial ideas and gaps were reviewed, and memos were written to document reflections and interpretations.
- Data Management and Withdrawal: Data was transcribed verbatim to facilitate thorough familiarity. Participants were given the right to withdraw at any point, and their decisions were recorded and reflected in the study updates.

- Analysis and Reporting: The process of coding, categorising, and theme development were mapped transparently to clarify the analytic choices made.

3.12 Chapter Summary

This chapter outlined the methodology and data analysis techniques used in the study, covering elements such as sample size, methodological framework, and data collection tools. The study used a qualitative approach, conducting semi-structured interviews via Microsoft Teams. These interviews gathered insights from senior management in organisations with existing or planned generative AI-enabled loyalty programmes. Ethical considerations were rigorously adhered to, including obtaining necessary approvals from the University Ethics Committee and ensuring the anonymity of participants and organisations. Data analysis was conducted using a seven-phase thematic analysis approach to systematically manage and determine patterns within the collected data.

CHAPTER 4. RESEARCH FINDINGS

4.1 Introduction

This chapter unveils key insights from qualitative interviews with senior management at a South African organisation preparing to integrate generative AI into its loyalty programmes. The research delves into how generative AI can be strategically incorporated into loyalty initiatives within the South African context to transform customer experience.

The findings are structured to address the research questions from Chapter 1:

1. How can generative AI be adopted to customise loyalty programme rewards and incentives for each customer?
2. What are the potential benefits and obstacles associated with integrating generative AI into loyalty programmes?
3. What are the ethical considerations and societal impacts of using generative AI in loyalty programmes within the South African context?

To present these findings, the chapter begins with a summary of the participants who contributed to the interviews, followed by an overview of the coding process. The findings are then organised and presented using the TOE framework, as detailed in the previous chapter. Each section begins with a discussion of the key findings, supported by excerpts from participants' responses to ensure authenticity and provide depth to the analysis.

4.2 Demographic Data

The initial plan was to interview twelve participants for the study. However, as Hill et al. (2005) recommend qualitative research typically includes 8 to 15 participants, and Fusch and Ness (2015) suggest that data saturation can be reached with as few as six interviews, the decision was made to stop after the 10th interview. Data saturation was achieved when no new insights emerged from

the participants' responses (Fusch & Ness, 2015). As a result, ten senior managers from a South African organisation planning to adopt generative AI in their loyalty programme contributed to the study. The demographic data highlights key attributes such as job roles, years of experience, and organisational sectors, offering insight into the diverse perspectives that informed the study. To ensure confidentiality, this data was aggregated as below to protect the identity of the participants:

- Participants' names were replaced by unique identifiers (Participant_1 until Participant_10).
- The current role in the organisation was aggregated to remove the division the executive/senior manager represents.
    - Instead of Executive Head Loyalty and AI, these roles will fall into Executive Head.
    - Further to this, the “Domain Expertise” was added to distinguish those from technology and those from business domain.
- The number of years in the current role and within the organisation was aggregated to be a range rather than the exact number of years.

In this organisation, the loyalty programme strategy resides within the business area, while the technology departments provide the necessary capabilities and support for the programme. Consequently, the decision was made to include both business and technology representatives, with 50% of the participants coming from the business side and the other 50% from technology. This approach ensured a balanced perspective and adequate insights from the interviews. Although all participants have been in their current roles for less than five years, they have previously held senior management positions within the organisation for a significant period. Additionally, most participants have been with the organisation for an extended time, ranging from six to fifteen years as seen in the Table 4.1 below.

Table 4.1 Participant's demographic summary as highlighted below.

Participant ID	Current Role	Domain Expertise	Tenure Range In Current Role	Tenure Range In Organisation
Participant_1	Executive Head	Business	Under 2 years	1 - 5 years
Participant_2	Chapter Lead	Technology	Under 2 years	Above 15 years
Participant_3	Chapter Lead	Technology	2 - 4 years	6 - 10 years
Participant_4	Chapter Lead	Technology	2 - 4 years	6 - 10 years
Participant_5	Executive Head	Business	2 - 4 years	11 - 15 years
Participant_6	Product Owner	Business	Under 2 years	1 - 5 years
Participant_7	Executive Head	Business	2 - 4 years	1 - 5 years
Participant_8	Product Owner	Business	Under 2 years	6 - 10 years
Participant_9	Managing Executive	Technology	2 - 4 years	11 - 15 years
Participant_10	Chapter Lead	Technology	2 - 4 years	Above 15 years

As outlined earlier, the participant summary in Table 4.1 indicates an equal split, with 5 participants (50%) from the business area and 5 participants (50%) from technology. The business roles include three Executive Heads and two Product Owners, while the technology roles comprise one Managing Executive and four Chapter Leads. Participants from technology have tenures ranging from 6 to 15 years, whereas the business participants predominantly have less than 6 years.

4.3 Data Analysis Process

As mentioned in the previous chapter, the data analysis for this study was designed to follow the Technology-Organisation-Environment (TOE) framework, a well-established approach for examining the adoption and integration of innovative technologies within organisations. While the TOE framework provided a robust structure for analysing Technological, Organisational, and Environmental factors, this study incorporated an additional element: *participants' current knowledge and understanding of generative AI* and their organisation's *application of these technologies* in loyalty programmes. This inclusion serves as

a foundational layer, ensuring the analysis captures not only the structural and contextual factors but also the participants' firsthand perspectives and baseline awareness. By integrating this element, the analysis aims to provide a more nuanced understanding of the dynamics at play in the adoption of generative AI for loyalty programme innovation.

The identified elements emerged as themes during the data analysis conducted using ATLAS.ti version 25.0.1, a qualitative data analysis software utilised for coding and analysing the data. Figure 4.1 below illustrates the themes along with their associated quotation counts, accompanied by a summary table outlining the categories within each theme.

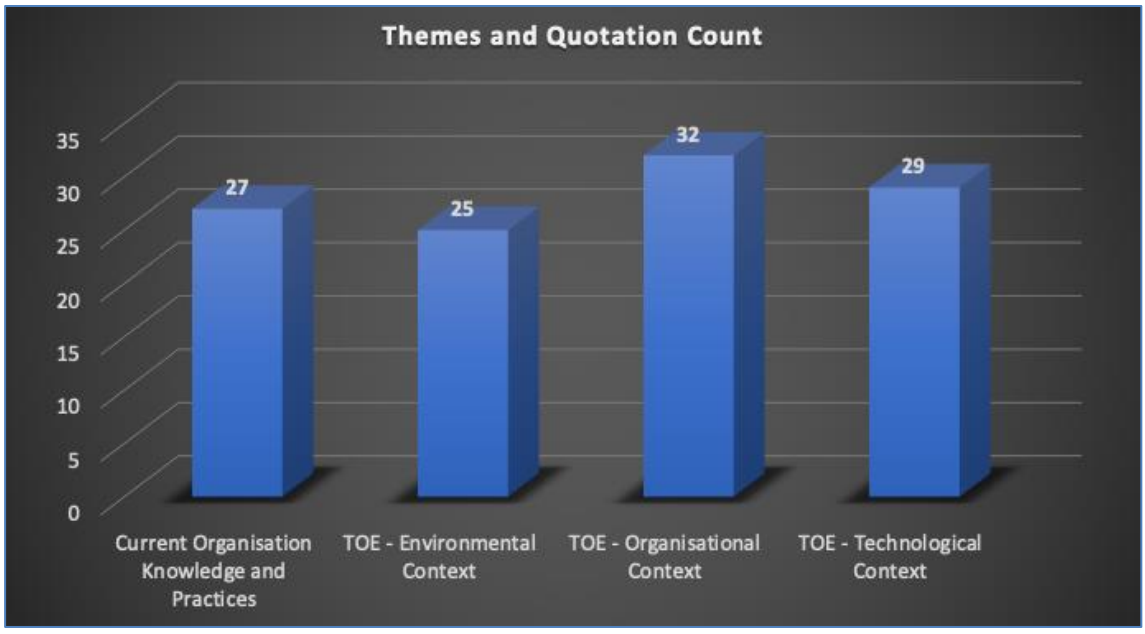

Figure 4.1 Graph showing themes and their associated quotation counts.

Table 4.2 below presents the identified themes, their categories and the number of codes per theme derived from the data analysis, ensuring a structured representation of key patterns emerging from the data.

Table 4.2 Overview of the themes and categories for the study

Theme	Category	No of codes
Current Organisation Knowledge and Practices	Current Involvement and Knowledge – AI and Strategies	27
	Current Involvement and Knowledge – Loyalty Programme	
	Current Knowledge – GenAI Adoption within the Organisation	
TOE – Technological Context	Technology - Potential of GenAI in LP - Perceived Benefits	29
	Technology - Potential of GenAI in LP - Perceived Challenges	
	Addressing Privacy, Security and Ethical Concerns Strategies	
	Technology - Additional Insights from Closing Comments	
TOE – Organisational Context	Organisation - Impact of Integrating GenAI into LP	32
	Organisation - Leadership Support and Adoption Culture	
	Organisation - Employees Skillset and Strategies	
	Organisation - Addressing Biases Concerns Strategies	
TOE – Environmental Context	Environment – Market and Regional Differences	25
	Environment - Pressure to Adopt and Its Origin	
	Environment – SA Ethical Regulatory Landscape	

Figure 4.1 and Table 4.2 above show that four themes emerged from the coding process with the associated quotations. As discussed in the previous chapter, the TOE framework was followed for this study, and as a result, three of the themes in this study are from the framework in addition to the participant's "Current Organisation Knowledge and Practices", which delves into current organisation's loyalty programme and AI knowledge and practices from the participants. The most discussed theme was the Organisational element of the TOE framework with 32 quotations while the least discussed theme was the Environmental element with 25 quotations.

Further to the above theme depiction, Figure 4.2 below shows the contribution per theme per participant.

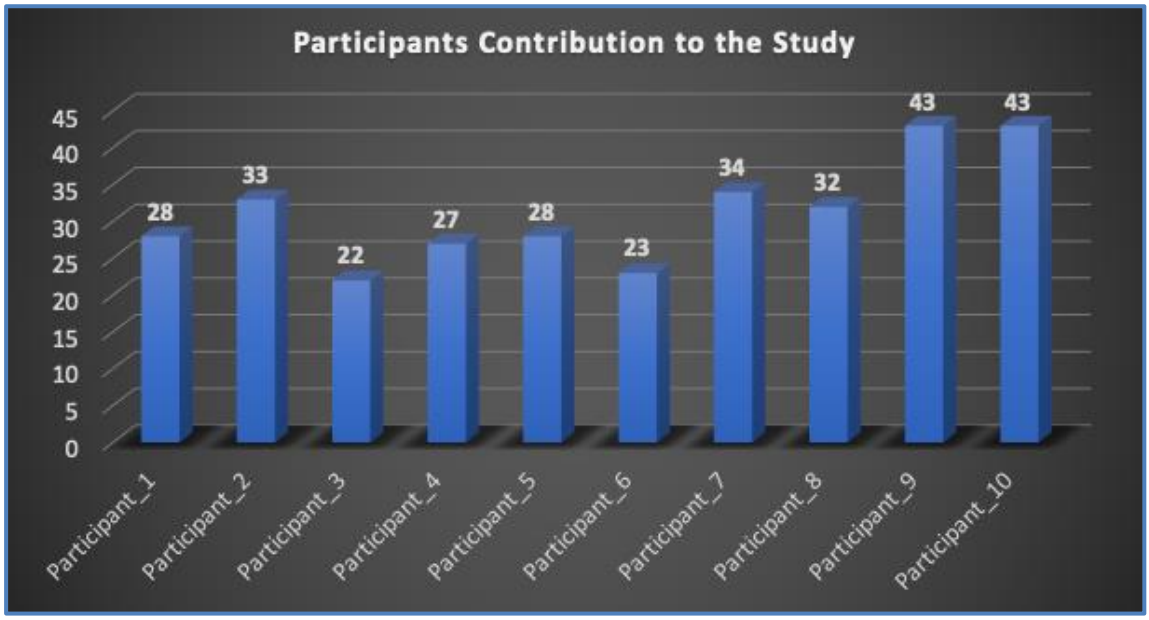

Figure 4.2 Graph showing participants' quotation counts across themes

Figure 4.2 above shows the 10 participants' contribution to the study through quotation counts across themes. Participant_9 (Managing Executive) and Participant_10 (Chapter Lead) who are from the Technology area had the highest number of quotations at 43 each while Participant_3 and Participant_6 had the least quotations for the study at 22 and 23 quotations respectively.

4.4 Current Organisation Knowledge and Practices Context

This section delves into participants' knowledge and understanding of their organisation's loyalty programme, the role of artificial intelligence (AI), and the current practices that define how the organisation operates. These elements are critical in assessing the readiness and alignment of the organisation for integrating AI into its loyalty programme. The analysis explores how well participants are acquainted with the strategies, structure, and functioning of their loyalty programme, as well as their awareness of AI technologies and their potential applications. Furthermore, it examines the existing practices and organisational approaches, shedding light on how this influence or align with the adoption and implementation of AI-driven solutions. This theme has 3 categories as seen in Figure 4.3 below:

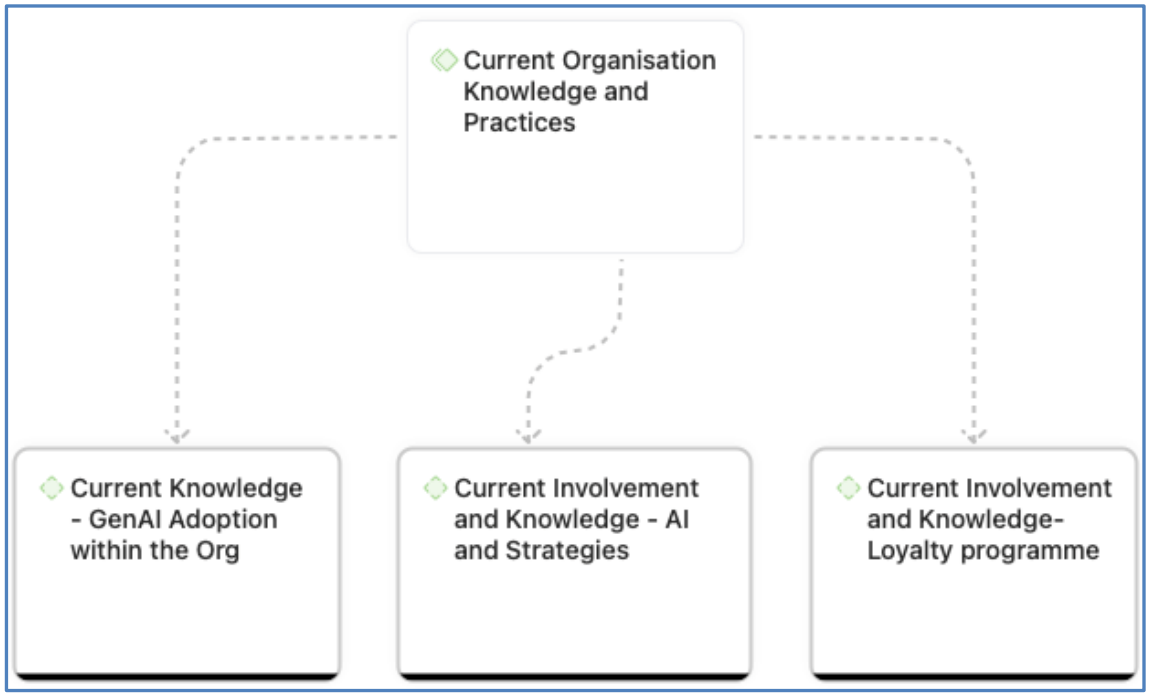

Figure 4.3 Organisation Knowledge and Practices: Theme and Categories

Table 4.3 below shows the Current Organisation Knowledge and Practices theme and its associated categories as well as the quotations count within those categories.

Table 4.3: Organisation Knowledge and Practices: Theme, Categories and Quotations Count

Current Organisation Knowledge and Practices	Number of Quotations
Current Involvement and Knowledge – AI and Strategies	10
Current Involvement and Knowledge – Loyalty Programme	7
Current Knowledge - GenAI Adoption within the Organisation	10

The details in Table 4.3 are discussed below, with a focus on the identified categories, their significance, and how they contribute to the broader themes. This discussion highlights the patterns within the data and their relevance to the research findings.

4.4.1 Current Involvement and Knowledge – AI and Strategies

This category delves into participants' knowledge of AI, with a particular focus on GenAI, their involvement in the organisation's AI strategies, and the adoption plans related to GenAI. Understanding the current level of knowledge and engagement is crucial as it highlights the organisation’s preparedness to leverage these technologies effectively. It also sheds light on the strategic alignment of AI initiatives with business goals, identifies potential knowledge gaps, and provides insights into how GenAI can be integrated into loyalty programmes to drive innovation, enhance customer personalisation, and improve competitive advantage.

4.4.1.1 Participants' Knowledge of GenAI

To assess the participants' knowledge of GenAI, the following question was asked: *“What is your knowledge regarding artificial intelligence, generative AI in particular?”*

Concerning knowledge of AI (traditional AI), most of the participants knew AI while some had practical experience in implementing the models – the knowledge among the participants was satisfactory. However, when it came to knowledge of GenAI in particular, 4 participants (1, 5, 6, and 8) from the business area mentioned that their knowledge is limited and high level due to it being a new technology. Four participants (2, 4, 9 and 10) from the technology area said they have a good understanding of the technology, and this was supported by the following excerpts from participants:

"Generative AI on the other hand, yes, it's new, but what generative AI does is machine learning, not just traditional machine learning. But it's more around the large language models that look at multiple data. At the same time looking at large language models that give us almost like human-like conversational kind of recommendations. So this is more around generative a couple of patterns around generative AI, things like RAG, where you can it on a knowledge base to help with finding things easier. That's around generative AI." **- Participant_9**

"I've got a good understanding of artificial intelligence. Specifically focusing on the machine learning engineering capability and then obviously the recently introduced generative AI capability. I think where most people have a misconception is that it's two different things that are not. So you've got your umbrella term, which is artificial intelligence. Underneath that is specifically machine learning. Underneath machine learning is a subset called deep learning and under deep learning is actually a generative AI piece. And basically, generative artificial intelligence is not that creative. It actually needs to take existing material in order to consume it, and from there, the generative piece really is around either creating new ideation ideas or material or alternatively just it takes if you ask it a question." ***– Participant_ 2***

4.4.1.2 Level of involvement in the AI strategies

To assess the level of involvement in the AI strategies, the following question was asked: *"Are you involved in the development of artificial intelligence strategies in the organisation?"*

Five participants (1, 5, 6, 8, and 10) said they were not directly involved with the development of AI strategies in the organisation. The other five participants (2, 3, 4, 7, and 9) answered that they were involved in the development of AI strategies in the organisation and four of these participants are from the Technology area.
"Yes, we put together what we call AI playbook. But from where we are as an organisation, it's something that we needed to put something in place. We cannot just put our hands on the sand and ignore what's happening around the world. So we do have something, but it's not where we would like it to be. So starting point we have, it's something that we need to work on and improve on even the team that I'm focusing around generative AI, we didn't have the legacy or the luxury of going and employing new people to say we're starting a generative AI team. We literally had to augment our current AI or machine learning team to say this is the same kind of skill that's required now. We need to prioritise and say how we going to do this. So I am almost day-to-day involved on making those decisions and also making sure that you know what we don't impact was currently on the ground was currently happening in terms of BAU, but we also balance with regards to moving forward." **– Participant_9**

"Yes, absolutely so. I was part of the team that drafted our internal AI policy, and we've now moved to phase two, where we are localising the policy for specific markets to align with local environments. Additionally, I play a key role in regulatory strategy for AI projects, ensuring compliance with relevant laws, even in the absence of AI-specific regulations." - ***Participant_7***

4.4.2 Current Involvement and Knowledge – Loyalty Programme

This section examines participants' level of involvement in and knowledge of the organisation's loyalty programme, particularly regarding its current and future use

of AI and GenAI. It seeks to understand how engaged participants are in the strategic development and implementation of the loyalty programme, as well as their awareness of how AI technologies might enhance or shape the programme's effectiveness. This knowledge is vital for assessing the alignment between participants' roles and the organisation's goals, especially as AI continues to transform loyalty programmes into more personalised and data-driven customer engagement tools.

4.4.2.1 Level of involvement

To assess the level of involvement, the participants were asked the following question: *"What level of involvement do you have in the organisation's loyalty programme?"*

All five participants (1, 5, 6, 7, and 8) from the business side said they are directly involved which includes the day-to-day running of the programme as well as the owner of the programme. The following participants supported this by stating:
"I'm the custodian of the loyalty programme in the organisation." **- Participant_5**

"I basically do the logic for the customer segmentation, understanding which customers or the behaviour of customers ensuring our loyalty programme can target and with which campaigns. My involvement is to make sure that whatever we present to the customer, is incremental for the business while we ensure that you see the value of our product offering." **- Participant_6**

Four participants (2, 4, 9, and 10) from the Technology area stated that they have some level of involvement and mostly from providing the machine learning capability, supporting operations of the day-to-day running of the programme.

They supported their statements by stating:

"So my role wasn't so much in the loyalty programme, but more around focusing on the machine learning engineering team to deliver machine learning capability to enable the business loyalty programme." **– Participant_2**

"My team actually is the one that built the entire loyalty programme platform, and we are still currently building that and expanding that. And we also responsible for making sure that the is operations and support for the technology." **– Participant_9**

4.4.2.2 Knowledge of current LP customisation

To assess knowledge of current LP customisation, the participants were asked the following question: *"How does the organisation currently customise loyalty programme rewards, benefits, and incentives for individual customers?"*
Of the 10 participants, 3 participants (5, 9, and 10) felt that the programme is not fully personalised to the individual customers and supported their statement with the following excerpts:

"We are lacking personalisation from the platform currently or it could be better from my perspective. So, it is very basic currently and I believe it could be better with the amount of data we possess." ***– Participant_5.***

"This is a great question because it reminds me of a time when I received rewards that didn't match my preferences. For instance, I would receive a voucher for a product or service I didn't use, which felt irrelevant to me." ***– Participant_10.***

Six participants (1, 2, 4, 6, 7, and 8) mentioned the capability around machine learning which looks at geographical location, segmentation and recommendations based on customer behaviour. This statement is supported by the following excerpts from the participants:
"So currently it would be based on geographical location, segmentation and data derived from machine learning. For example, different customers will get different

rewards based on the nature of the customer. Then maybe of those customers some live next to a particular shop for instance and some are very far from that shop, we don't reward those customers with a reward from a shop that is not accessible to them." **– Participant_1**.

4.4.3 Current Knowledge - GenAI Adoption within the Organisation

This category explores participants' understanding of their organisation's current stance on adopting Generative AI (GenAI), particularly within loyalty programmes. It aims to assess the level of awareness regarding their organisation's plans and strategies for integrating GenAI, including its potential applications such as personalisation, efficiency improvements, and enhanced communication with customers. Understanding participants' familiarity with these aspects is essential for evaluating organisational preparedness and identifying any knowledge gaps as AI strategies evolve.

4.4.3.1 Knowledge of GenAI adoption

To assess the knowledge of GenAI adoption in the organisation and use cases implemented, participants were asked the following questions: *"To your knowledge, has your organisation adopted generative AI? If so, in which use cases?"*

Participant_1 and Participant_5 both indicated that the organisation has not yet adopted generative AI.

"To my knowledge, no. Maybe there are individuals that adopted but not the organisation itself, I haven't seen anything in particular on the adoption. So there is definitely a focus on it, but from an adoption perspective. I can't say that we have." **- Participant_1**

The remaining eight participants (2, 3, 4, 6, 7, 8, 9, and 10) indicated that the organisation has adopted generative AI. Participants_2 and Participant_9

emphasised that the organisation is still in the early stages of adoption, with the primary focus on proof of concepts.

"We are at the infancy stages of GenAI adoption as a whole, and the reason I'm making that statement is that we have, like most other organisations, we've done a lot of POCs, but we have very little to show that we've actually converted it into full-fledged production solutions. We have established the necessary AI steer-co that provides us with a set of principles." **– Participant_2**

"Yes, we have to a certain extent, but we're not where we would like to be. It is a very slow process that we are we are on, but it is a process that we are working on. Importantly, it's something that we are intentional about. Generative AI everyone focused on POC, so we have POCs. We are at a point where we have to think about how are we going to scale it into a large organisation like ours. We have use cases around search such as a service or we can help the customers to be able to find things easier on our website we have." **– Participant_9**

Among the eight participants who answered "Yes," four provided examples of generative AI use cases that the organisation has already implemented as seen in Table 4.4 below. This indicates that not all participants were fully aware of the organisation's existing use cases.

Table 4.4 Summary of the use case provided by participants

Participant ID	Excerpts on Use Cases
Participant_2	*"We have about 2 use cases that we have put into production, but they are not around loyalty programmes."*
Participant_3	*"we have rolled out a social media sentiment analysis use case and another one around searches within a knowledge base area."*

Participant_9	*"We have use cases around search such as a service or we can help the customers to be able to find things easier on our website we have."*
Participant_10	*"We have one where we improved the search engine on our website."*

4.4.3.2 Participants' Awareness

To understand the participants' awareness of their organisation's intentions and their familiarity with the potential applications of GenAI in LPs, the following question was posed: *"To your knowledge, does your organisation have plans to adopt generative AI in loyalty programmes? If so, how familiar are you with its potential applications in loyalty programmes?"*

Of the ten participants, four participants (5, 6, 7, and 8) from the business area explicitly confirmed that the organisation plans to adopt GenAI in its loyalty programmes. **Participant_7** elaborated on the organisation's interest in GenAI as a natural progression from its current use of big data and machine learning:
"*Yes, I think so, I see generative AI as a natural progression from our current use of big data and machine learning. While we currently rely on analytical AI, we are beginning to explore generative AI applications, starting with enhancing customer service by helping call centre agents track interactions and customer sentiment. Generative AI can provide deeper insights and improve our offerings for loyalty programmes."*

Similarly, **Participant_5** discussed a roadmap for GenAI adoption within the next 12 to 18 months:
"*The plan year is within the next 12 to 18 months, be able to see with big data and GenAI, what vouchers did the customers redeemed and use that to tailor relevant rewards to the customer. And also I think what is important is for us to be able to communicate with customers the way they prefer to be spoken to. The aim of our loyalty programme is to create that value and be that loyalty*

programme of choice and this technology will enable us to get that type of intelligence that we need to get to. But we are not there yet, our programme is only four years old."

The remaining six participants (1, 2, 3, 4, 9, and 10) mostly from the technology area, did not provide a definitive "Yes" or "No" but instead focused on potential applications and future possibilities. From those participants, the emerging themes that dominated were around creating efficiencies, communicating effectively, the highest level of personalisation as well as generating models to enhance existing ones to suit customer behaviour. This statement is supported by the below excerpts from the different participants:

"There's the level of personalisation that you need to sort of get to when it comes to loyalty programmes. So it's nice to personalise rewards or just communication and how you speak to a customer using GenAI and it helps you understand the customer better. It will also help recommend maybe suitable rewards. So definitely the personalised offerings and chatbots in general to help customers." **– Participant_1**

"*I hope we're gonna get to is where it can start generating models. Or particular patterns, right? And there I see it rather than looking at a customer, their history, their spending behaviour, their usage, whatever. And perhaps tailoring offers a little bit of that. What we do from a machine learning perspective, 'cause remember, machine learning is still taking a set of offers that we manually put in, and then it looks at the customer and then it says OK. Based on the learning that we have from a model perspective, we think that you have a higher propensity to buy this, whereas with genitive AI can get even more clever and you can start formulating different types of offers and products."* **– Participant_4**

These findings from this category illustrate a versatile perspective on the organisation's current knowledge and practices regarding AI, loyalty programmes, and generative AI adoption. While there is some evidence of

existing AI strategies and use cases, awareness among participants remains inconsistent.

1. **AI and Strategies**: A significant number of participants demonstrated limited awareness of the organisation's AI-related initiatives, highlighting potential gaps in communication or exposure to these efforts. However, those who were knowledgeable provided valuable insights into implemented use cases, reflecting the organisation's early-stage engagement with AI technologies.
2. **Loyalty programmes**: The discussions revealed varying levels of understanding regarding the integration of AI into loyalty programmes. This suggests that while AI adoption may be on the agenda, it is either in its infancy or has not been fully disseminated across organisational levels, leading to fragmented knowledge.
3. **Generative AI Adoption**: Awareness of generative AI adoption within the organisation was also uneven. While some participants could reference specific applications or strategic intentions, others lacked familiarity, underscoring the need for broader organisational engagement and clarity around generative AI initiatives.

Overall, these findings highlight the organisation's preliminary progress in AI and generative AI adoption but also expose critical knowledge gaps that could limit the alignment and effectiveness of these efforts. Addressing these gaps through comprehensive communication strategies, training programmes, and knowledge-sharing initiatives will be essential for the organisation to fully realise its AI-driven objectives and foster an inclusive culture of innovation.

In Figure 4.4 below is the Concepts Analysis of this theme which shows keywords that emerged from the quotations in the different categories associated with the theme: Current Organisation Knowledge and Practices (*datum – singular form for data):*



Figure 4.4 Current Organisation Knowledge and Practices Concept analysis

Figure 4.4. above illustrates key terms related to the organisation's understanding of AI, loyalty programs, and generative AI adoption. Terms like loyalty, reward, customer, and program reflect the focus on customer engagement, while machine learning, data, and technology highlight the technological foundations. Words such as personalisation, segmentation, and recommendation show evolving strategies for customising offerings. The word cloud highlights gaps in awareness and underscores the need for improved communication and training to advance AI adoption.

4.5 Technological Context

The technological context of the Technology-Organisation-Environment (TOE) framework plays a crucial role in understanding the adoption of GenAI in loyalty programmes. This category examines the various technological factors that

influence the integration of GenAI, focusing on the perceived benefits and challenges, the capabilities of GenAI, and strategies that address privacy and security concerns. As organisations explore the potential of GenAI to enhance customer engagement and loyalty, it is essential to consider both the technological advantages, and the hurdles associated with its implementation. Additionally, the closing remarks provide further insights into key considerations that organisations should account for when adopting GenAI in their loyalty programme strategies. For this theme, the following categories emerged from the data analysis as seen in Figure 4.5 below:

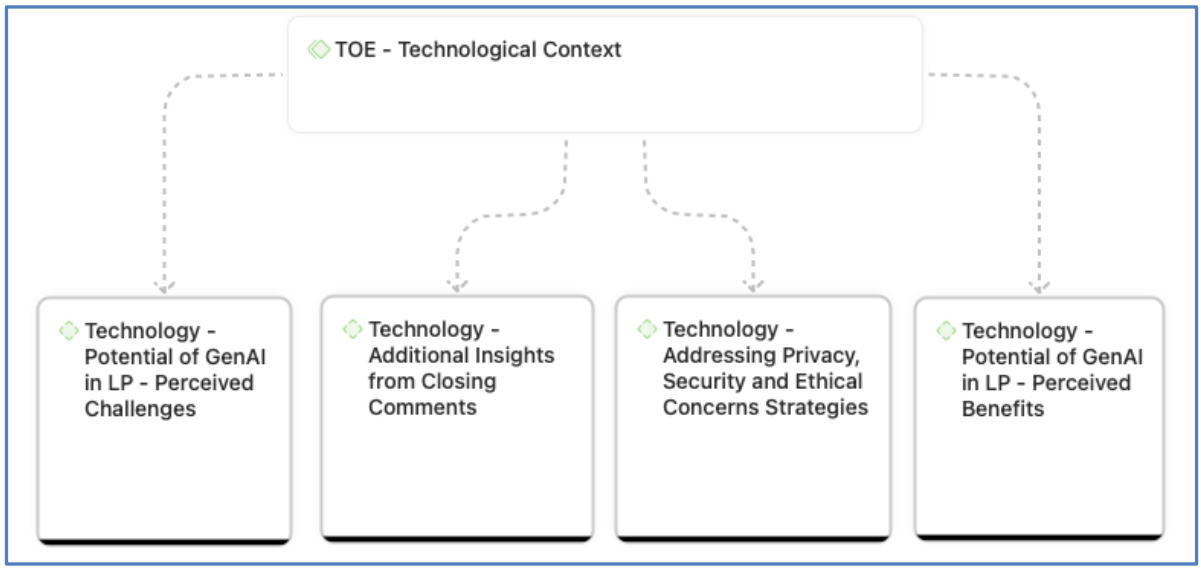

Figure 4.5 Technological Context: Theme and Categories

Table 4.3 Technological Context: Theme, Categories, and Quotations count

TOE – Technological Context	Number of Quotations
Technology - Potential of GenAI in LP - Perceived Benefits	9
Technology - Potential of GenAI in LP - Perceived Challenges	8
Technology - Addressing Privacy, Security and Ethical Concerns Strategies	7
Technology - Additional Insights from Closing Comments	5

Figure 4.5 and Table 4.3 above show the TOE – Technological Context theme and its associated categories as well as the quotations count within those categories. The details of Table 4.3 will be discussed below.

4.5.1 Technology – Potential of GenAI in LP: Perceived Benefits

This category examines participants' perceptions of the potential benefits of adopting GenAI within loyalty programmes. It explores how participants view the technological advantages of GenAI, such as enhanced personalisation, improved customer engagement, and operational efficiencies. Understanding these perceived benefits is crucial for assessing the value that GenAI can bring to loyalty programmes and its potential to drive innovation and competitive advantage within the organisation.

The following question was asked of the participants: *"What benefits do you see from using generative AI in your loyalty programme, especially in personalising rewards and incentives for customers?"*

Figure 4.6 below highlights the perceived benefits, with emerging keywords/themes such as personalisation, experience, recommendation, engagement, reward, segmentation, and NPS, among others.



Figure 4.6 Concept analysis showing keywords under perceived benefits

Eight participants (1, 2, 3, 4, 6, 7, 9, 10) identified hyper-personalisation as the greatest benefit of integrating GenAI into loyalty programmes. This was supported by the following excerpts:

"So I strongly believe that there is a significant benefit in hyper-personalisation. In hyper-personalisation, you know in offering services and products to customers. I think our offerings currently are too generic. GenAI can give us the capability to have proper segmentation, strategy and hyper-personalisation within those segments. I think we can make a real difference in the uptake, you know, within the loyalty programmes." **– Participant_3**

"Customising the experience to fit the specific customer and how we engage with the customers will in turn ensure that customer loyalty." **– Participant_4**

Participant_2 and 3 emphasised tailored communication to the customer as one of the most relatable benefits:

"GenAI allows us to communicate with our customers on their level, and that makes a difference in customer engagement and loyalty. Communicating with a 70-year-old will be different to how you communicate with a teenager, this will range from the tone of the message, the language used and the times we try to engage and communicate with that customer. So I think generative AI will help us in that regard." **– Participant_3**

Creating efficiencies was another one that was mentioned by Participants (8, 9, and 10), except from Participant_10:

"These models can help optimise our digital journeys by predicting what customers want based on their behaviour. Instead of a customer navigating through irrelevant content, a model can personalise their experience, making it easier and quicker for them to make decisions and purchase."

Additional insights from participants' responses include customer satisfaction, innovation, enhanced ecosystems, increased engagement, and potentially higher NPS scores.

4.5.2 Technology – Potential of GenAI in LP: Perceived Challenges

This section delves into participants' perspectives on the challenges they associate with GenAI in loyalty programmes. The aim is to explore the perceived difficulties as shared by participants, including concerns about data security and privacy, system integration complexities, potential biases, and the required infrastructure and expertise. By capturing these viewpoints, this section provides insights into the hurdles the organisation may need to address when considering the implementation of GenAI in loyalty programmes. To gain these insights the participants were asked the following question:

"*What challenges do you foresee in the adoption and implementation of generative AI in your loyalty programme?"*

Of the 10 participants (1, 3, 8, 9, and 10) five highlighted significant challenges related to data privacy and security, expressing concerns about the potential for fraudulent activities involving customer data. Four participants (3, 6, 7, and 9) emphasised the critical role of data quality, noting that the effectiveness of GenAI heavily depends on the accuracy and reliability of the input data. Additionally, participants 2, 4, 8, and 10 pointed out that deployment strategies and high operational costs present further obstacles to successfully implementing these solutions.

These insights are supported by the excerpts below:
"A key challenge is deciding whether to use open-source generative AI tools or an enterprise version, while also considering where to store and train data. Generative AI relies heavily on data, and we need to ensure we're confident in the security of the platforms we use. These concerns about data security and privacy are paramount in our decision-making process." **– Participant_10**

"Remember that these technologies are data-driven and data-intensive. So for us today to know the customer, we need data on the customer and the basic definition of AI if you look under the EU Act, which offers a really good definition, I like that definition because it's technology agnostic. It doesn't hinge on any technology. It just says this is AI and it says that AI is only as good as the input you give it. So it's only as good as the data you give it that determines the output." **– Participant_7**

"There is a cost challenge, these things are expensive to run so this will definitely be a big factor and prohibitor. Decisions between running these in a hyperscale or do we actually run this on premise? This needs accelerators and GPU considerations as well. So that's some of the things we're still grappling with." **– Participant_2**

4.5.3 Technology – Addressing Privacy, Security, and Ethical Concerns Strategies

This category examines participants' views on the strategies that organisations have implemented or are attempting to implement to address privacy, security, and ethics concerns in the adoption of GenAI for loyalty programmes. Participants discuss the measures taken by their organisations to safeguard customer data, ensure compliance with regulations, and protect against potential security breaches. The insights provided offer a perspective on how this organisation is navigating the challenges of data privacy, security, and ethics while integrating GenAI into its operations.

Because the organisation already has traditional AI implemented, four of the participants (3,4,7,8) mentioned that the same principles that were applied to traditional AI models are inherited for GenAI, so they are leveraging the existing AI standards like not using customer data to train the models and only using customer data for the intended purpose. Participants 2, 4, and 10 also mentioned that the organisation achieves privacy and security concerns by ring-fencing and putting guardrails in the environment they work on, and restricting usage of prohibited platforms where customer data is concerned. Participants 3, 4, 7, and 9 touched on the organisation's AI blueprint which talks about their AI policies dos and don'ts' s and covers ethics as well.

"So, for GenAI as well the standard principles still apply, but like I said, we avoid using the data for enriching the model, training the model, having it shared with other vendors, having it shared with other people who are using the model but ensuring that we use the data for that it was intended for." **– Participant_4**

"We can achieve privacy and security concerns by ring-fencing the environment we work on. For instance, with the adoption of co-pilot, it is in a controlled environment, and we control what data and information we feed those models as

we don't want certain information to leave the organisation's boundaries." **– Participant_2**

"Regarding ethical and regulatory requirements, we have frameworks in place. At our organisation, these issues are addressed as part of our governance structure. Before implementing AI platforms, we ensure alignment with certain principles, and approval is required from the board. So, yes, we are actively considering and managing these requirements." **– Participant_9**

4.5.4 Technology – Additional Insights from Closing Comments

In this category, we explore additional insights shared by participants in their closing comments regarding the integration of GenAI in loyalty programmes. Participants highlighted the importance of digitising languages beyond English to effectively communicate with a diverse customer base, leveraging GenAI's capability to support multiple languages. Furthermore, they emphasised the value of starting small with proof of concepts rather than opting for a large-scale, immediate implementation ("big bang"). These insights shed light on practical considerations and strategies for successful GenAI adoption in loyalty programmes.

Participants 5 and 7 put emphasis on language availability considering that they serve a broad diverse customer base who speak different languages in South Africa – having this capability will help in communicating to their customers how they prefer to be communicated to. Participant_10 emphasised the need for organisations to embrace proof of concepts on new technologies by starting small and then scaling after proven use cases.

"Simple things like that explain to me how to use the loyalty programme in the language that I speak, and AI will assist you with that because you can then respond in a certain way. I don't speak English, I speak Afrikaans. Respond in your language and have our systems be intelligent enough to interact with that customer at the level that they are." **– Participant_5**

"One of the biggest gaps is the availability of data, especially language data. Globally, English is leading, and then, you know, African languages are way behind. What's interesting is that some companies like Lelapa AI in South Africa are pushing this forward, but it's still not enough. We need to think about the digitisation of African languages as a precursor to generative AI because that's the barrier right now. If the technology doesn't cater to all our languages, we won't reach all of our customers effectively. And that's a huge challenge for us moving forward." **– Participant_7**

In summary, the technological context of GenAI adoption in LPs reveals significant opportunities alongside notable challenges. Participants emphasised the benefits of GenAI in personalising customer experiences, improving engagement, and streamlining operations. GenAI enables tailored rewards and offers, enhancing customer satisfaction while reducing operational costs through automation and improved decision-making.

However, concerns around data privacy and security were highlighted as crucial factors, with organisations focusing on strategies to protect sensitive customer data. Challenges related to data quality, deployment strategies, and costs were also noted, stressing the need for careful planning and phased implementation through proof of concepts. Additionally, participants recognised the value of GenAI's multilingual capabilities, highlighting the importance of digitising beyond English to reach diverse customer bases and enhance inclusivity.

Overall, the insights show that while GenAI offers vast potential, its successful adoption requires a balanced approach to innovation, security, and scalability.



Figure 4.7 Concept analysis to conclude the Technological Context theme

Figure 4.7 above illustrates key terms related to the technological context theme. Words such as data, customer, privacy, and security highlight the importance of handling customer information securely. Terms like model, platform, and technology reflect the underlying technologies driving GenAI, while challenge and reward emphasise the obstacles and incentives involved in implementing these tools effectively.

4.6 Organisational Context

The organisational context explores participants' perspectives on how internal factors within organisations influence the adoption of GenAI in loyalty programmes. This theme delves into the broader impact of integrating GenAI, the role of leadership in shaping adoption culture, the importance of employee skillsets and training strategies, and how organisations are addressing critical issues like biases, privacy, and ethics. Additionally, it captures participants' closing thoughts on organisational challenges and opportunities in adopting these

technologies. Together, these insights provide a comprehensive view of the internal dynamics that enable or hinder the successful integration of GenAI in loyalty programmes. The following categories emerged from the analysis as depicted in Figure 4.8 below with the quotations count in each category.

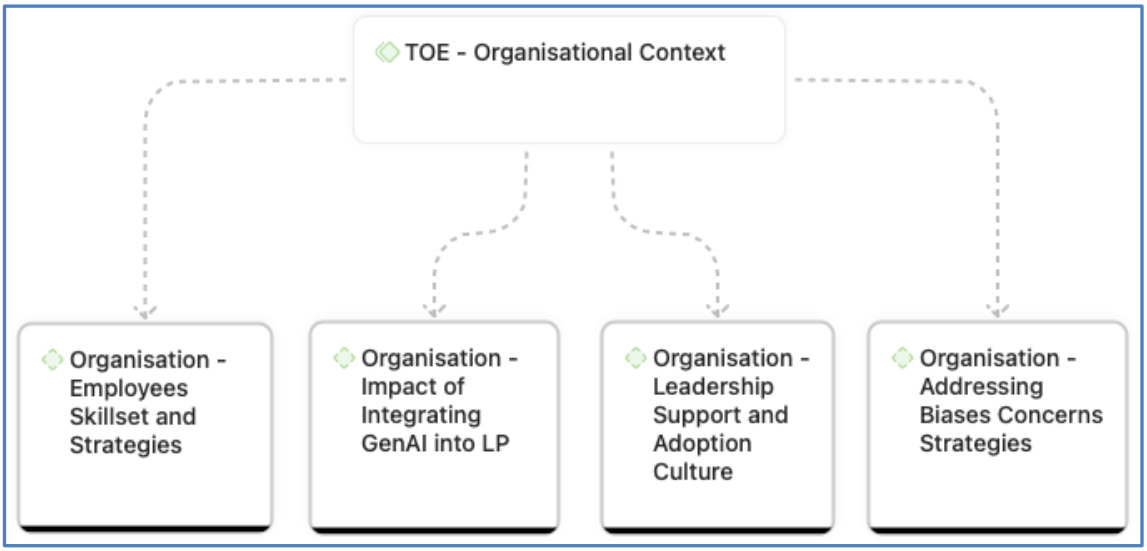

Figure 4.8 TOE – Organisational Context: Theme and Categories

Table 4.4 Organisational Context: Theme, Categories, and Quotations count

TOE – Organisational Context	Number of Quotations
Organisation - Impact of Integrating GenAI into LP	6
Organisation - Leadership Support and Adoption Culture	9
Organisation - Employees Skillset and Strategies	7
Organisation - Addressing Biases Concerns Strategies	10

Figure 4.8 and Table 4.4 show the TOE – Organisational Context theme and its associated categories as well as the quotations count within those categories. The details of Table 4.4 will be discussed below.

4.6.1 Organisation – Impact of Integrating GenAI in LP

This category explores participants' views on the organisational impact of integrating GenAI into loyalty programmes in terms of customer experience, engagement, and loyalty. It examines how GenAI is perceived as a transformative tool that can drive significant value across various dimensions within organisations. Participants highlighted its potential to enhance customer loyalty through high levels of personalisation, deliver a competitive edge through innovation, and generate increased revenue from loyal customers. Additionally, they emphasised how GenAI could improve customer engagement, improve the overall customer journey and cultivate lasting loyalty by strengthening relationships. The insights shared in this category aim to uncover how organisations view these benefits, what motivates them to adopt GenAI in LP, and how they perceive its role in reshaping their strategic and operational approaches.

To explore this further, the participants were asked the following question: "*How do you think generative AI will impact customer experience, engagement, and loyalty?*"

All participants agreed that implementing GenAI in loyalty programmes would positively influence customer experience, engagement, and loyalty. Participants (3, 4, 5, 7, 8, 9, and 10) specifically highlighted that customer engagement would improve due to GenAI's ability to generate new and relevant content, derive deeper insights, and personalise rewards for each individual. They emphasised that this level of personalisation—such as communicating with customers in their preferred style—creates a sense of being understood, making customers feel valued and acknowledged by the organisation.

"GenAI allows us to communicate with our customers on their level, and that makes a difference in customer engagement and loyalty. Communicating with a 70-year-old will be different to how you communicate with a teenager, this will

range from the tone of the message, the language used and the times we try to engage and communicate with that customer. So I think generative AI will help us in that regard." **– Participant_3**

"The nice thing about generative AI, as I said, is creating brand new things based on a subset of information that it ingests and then learns right? So if we think about how customers engage with us, be it any of our channels, be it the front desk in the store, online, USSD etc. If they don't want to wait to speak to somebody, in particular, using generative AI we can then customise that experience for the customer." **– Participant_4**

Similarly, when it came to impact on customer experience, participants (1, 2, 4, 9, and 10) mentioned that the capability to personalise the experience to the individual customers will lead to enhanced and improved customer experience

"Generative AI is going to significantly improve customer experience, engagement, and loyalty. For example, imagine visiting a website and interacting with a bot named Hazel. You could simply say, "I'm looking for the new iPhone 16," and the bot would immediately respond, saying, "I see you're interested in the iPhone 16 launch. Here are the stores that still have stock, and what bundle are you looking for?" This kind of interaction makes it feel like you're talking to a person rather than having to search through endless records on a website, trying to find the right bundle or price. It's going to enhance customer experience by providing instant, tailored responses." **– Participant_9**

"Additionally, our loyalty platform already incorporates rewards and gifting as a way to create stickiness. With generative AI, we can further personalise these rewards, ensuring they are meaningful to customers. This approach enhances the customer experience by focusing on what is truly valuable to them, rather than assuming what might be beneficial." **– Participant_10**

The analysis above highlighted that these factors ultimately contribute to customer loyalty. Participants 2, 7, 9, and 10 echoed this sentiment, adding that delivering positive customer experiences encourages customers to remain loyal to the brand, become brand ambassadors, and foster a sense of stickiness with the organisation.

"Introducing generative AI into the loyalty programme would be a great addition to this space. It could significantly help the business achieve its objectives, like increasing customer stickiness and fostering long-term loyalty. Additionally, this integration could uncover untapped revenue streams, which is always valuable."
– Participant_10

Participants also highlighted that integrating GenAI into loyalty programmes could provide organisations with a competitive advantage and potentially unlock untapped revenue streams. Examples shared included the use of chatbots, which enhance customer service by proactively engaging with customers on their platforms.

4.6.2 Organisation – Leadership Support and Adoption Culture

This category delves into participants' perspectives on the role of leadership and organisational culture in driving the successful adoption of GenAI in loyalty programmes. Leadership support is seen as a critical enabler, ensuring that the integration of GenAI aligns with the organisation's strategic goals. Participants emphasised that leaders play a vital role in fostering an innovation-driven culture and encouraging collaboration across teams. Additionally, a supportive adoption culture, characterised by openness to change and adaptability, was highlighted as essential for overcoming challenges that they mentioned as possible prohibitions to maximising the benefits of GenAI technologies.

To assess this the participants were asked the following question: "*How would you describe your organisation's culture regarding the adoption of generative AI, encompassing perspectives from both employees and leadership?*"

Participants (2, 4, 5, 7, 8, and 9) agreed that there is strong leadership support and a clear drive within the organisation to adopt emerging technologies, including GenAI. They noted that this support is demonstrated through the availability of training programmes, which empower employees with the skills needed to effectively implement and utilise these technologies.

"I think there is a strong culture of adoption in this organisation and the leadership team also drives this. We are way ahead of our competitors in South Africa." **– Participant_7**

"I think the adoption of generative AI is definitely driven by leadership. They've taken active steps, like making courses available for us to learn about generative AI. It shows that leadership has acknowledged its importance and is keen on ensuring that we, as employees, are equipped with the knowledge to use these tools." **– Participant_8**

From an employee perspective, participants (1, 2, 3, 5, and 10) indicated that employees are not fully embracing these technologies, with a divide between those adopting and those resistant to change. Participants proposed strategies for leadership to foster adoption and emphasised the importance of follow-up actions to assess whether employees are fully engaging with the technologies after being encouraged to do so.

"I don't think we embracing it yet, to be honest. I think some individuals are, even leadership in the company, they'll speak about it, but I don't think from adoption, or you know making sure that everyone embraces it. We not there yet you know, it's probably like a 20% of our company that's maybe, you know, engaging and adopting and embracing it, whereas the other 80% is not there yet. It also stems

from the use cases right, you need to understand how you can actually use it. Without understanding how you can use it as a company, it's not gonna necessarily get adopted, and there's there won't be focus on it." **– Participant_1**

"I think generative AI generally excites those who are technologically savvy. However, as I mentioned in the context of change management, there's a saying that "culture eats strategy for breakfast, lunch, and dinner." If you don't find ways to bring about change in an exciting, informative, and educational way, reassuring employees that AI is an addition that enhances efficiency and frees up time for more engaging tasks, there will likely be resistance." **– Participant_10**

On the other hand, participants (2, 3, 4, 7, and 10) noted that the employees who are embracing the adoption are enthusiastic about it. They observed that this group tends to be comprised mostly of younger, tech-savvy employees. Additionally, they highlighted that the organisation's workforce has a strong appetite for learning and is eager to embrace new technologies.

"There is however several people embracing the use of co-pilot in the organisation already. I think the younger generation is more than the older fashioned ones." **– Participant_2**

Some of the views the participants shared were the perceived challenges in getting everyone on board, they believe they believe that not everyone understands the value and the benefit of using GenAI and as a result, this still creates fear in employees of losing their jobs as opposed to seeing this as an opportunity to be more efficient. This brought about suggestions for reassurance and intervention from the leadership team and change management.

"However, I do feel that while leadership is on board and the groundwork is being laid, there's still a challenge in getting everyone to fully understand the value and potential of generative AI. It's more about showing people why it's beneficial and how it can be applied effectively within our roles and responsibilities." **- Participant_8**

"However, in some other areas of the business, there was still hesitation. For example, when I proposed automating design solutions within my team, I had to demonstrate that this would not replace the architect but would instead help accelerate our ability to meet business requirements. This reassured people that they remained valuable assets to the organisation." **Participant_10**

4.6.3 Organisation – Employee Skillset and Strategies

Participants were asked whether the organisation possesses the necessary skill set to effectively adopt emerging technologies, and if gaps were identified, what strategies are in place to address them, and ensure employees are equipped with the capabilities needed to successfully implement and utilise these technologies. Gaining these insights is crucial for understanding how the organisation can support its workforce in adapting to technological changes and ensure the successful implementation of GenAI and other emerging tools.

To gain insights into this, participants were asked the following questions: *"Does this organisation have the necessary skills to adopt and integrate generative AI into its operations? What is the strategy to overcome those challenges if any?"*

Seven participants (1, 2, 3, 4, 6, 7, and 8) said the organisation has the right skill to adopt this technology and integrate it into their operations while Participant_5 and Participant_9 said the organisation does not have the right skills to adopt and integrate GenAI into its operations. Below are the excerpts from the participants: *"Definitely. We invested in teams that are supposed to fully look at AI, which is the big data team. So I think we do have the skill sets."* **– Participant_6**

"I think from what's available right now, like I said, everything is so new and we're all still learning the fact that we have or at least trying to get dedicated people looking at the technology and looking at how to implement, how to implement it in the best way possible and how to implement to make an actual difference in

the business is a good thing? So I would say somewhat have the skill set." **– Participant_4**

Participants (1, 2, 6,7, 8, 9, 10) agreed that the organisation is working on filling the skills gap by providing training, and upskilling the teams through practical utilisation of the tools already adopted in the organisation.

"Partly, yes, but there is still an opportunity to get more people to understand what this generative AI is and there is a drive with upskilling through training across the organisation." **– Participant_2**

"Upskilling the team is a priority, and we have implemented compulsory training on generative AI. We want people to have a basic understanding of concepts like large language models and what they entail. There is significant focus on training, as well as on practical utilisation." **– Participant_9**

4.6.4 Organisation – Addressing Biases Concerns Strategies

Participants were asked to share their views on how the organisation is addressing potential biases, privacy concerns, and ethical issues related to the adoption of emerging technologies, including GenAI. They were also asked to discuss the strategies in place to mitigate these risks and ensure that the organisation's use of technology aligns with ethical standards and regulatory requirements.

4.6.4.1 Steps to mitigate the biases

To explore the steps the organisation is taking to mitigate the biases, the participants were asked the following question: "*What steps is the organisation taking to mitigate any potential biases in the AI algorithms used in your loyalty programme?*"

According to participants (2, 3, 4, and 6), their organisation takes proactive steps to mitigate biases in the models. The approach shared by these participants emphasises the importance of continuous monitoring post-deployment and making adjustments to the models whenever biases are detected. Another strategy was the plans the organisation has to develop, train the models locally to decrease the biases that come with models trained in other countries lacking the South African context.

"Because the technology is so new again, once we build a use case, we'll only really get to see biases and hallucinations and things like that once we have it up and running, so there are certain things that we know to look out for, right? And we try and build it in as a safety net and a guard rail into the model. But it's gonna need continuous monitoring and we have what we call hyper care post deploying these models into production. So hyper care means you continuously looking at how that model is performing, how is it reacting to the data, the new data that it's ingesting and also the interaction that people are having with the model and making sure that it is not developing any biases." **– Participant_4**

"That's a great question. This concern actually came up during a presentation on big data to a central regulatory body. They highlighted the fact that many AI algorithms and tools are developed in the global north, which may not fully account for local contexts. To address this, our organisation has established a centre of excellence in South Africa, aiming to localise as much as possible. For example, while algorithms may be developed by our internal teams in South Africa, the specific markets handle interpretation and application to ensure relevance." **– Participant_7**

When addressing ethical concerns and the organisation's strategies to overcome them, findings from an organisational standpoint align with the discussion in the Technological Context. This connection emphasises the importance of AI policies, the formation of a steering committee (Steerco), and the establishment

of an AI approval board. These measures collectively ensure that all AI-related initiatives adhere to the standards outlined in the organisation's AI blueprint.

In closing, the insights shared by participants in the organisational context reveal the pivotal role internal dynamics play in the successful adoption of GenAI in loyalty programmes. Leadership support, organisational culture, employee skillsets, and strategies to address biases, privacy, and ethics all emerge as key factors influencing this integration. While leadership has driven the adoption of GenAI through training and innovation, challenges remain in ensuring full employee buy-in and addressing the risks associated with bias and ethical concerns. However, organisations are proactive in upskilling employees and mitigating these challenges, positioning them to leverage GenAI's potential to transform loyalty programmes and enhance customer engagement.



Figure 4.9 Concept analysis showing emerging recurring keywords for the Organisational context theme

Figure 4.7 above illustrates key terms related to the organisational context theme. Words such as people, team, leadership, and culture highlight the importance of human and organisational factors in successful implementation. Terms like bias, skills, training, and experience emphasise the need for continuous development within teams. Additionally, policy, customer, and engagement reflect the organisational strategies and customer focus required to integrate GenAI effectively.

4.7 Environmental Context

The environmental context theme explores the external factors influencing the adoption of GenAI in loyalty programmes, with a particular focus on market and regional differences, external pressures to adopt new technologies, and the ethical and regulatory landscape in South Africa (SA). This section delves into how the broader environment shapes organisations' approach to implementing GenAI, including the challenges and opportunities posed by regional disparities, regulatory requirements, and societal expectations. Participants' perspectives provide valuable insights into how these external elements impact the strategic decisions around adopting GenAI in LPs, ensuring alignment with market dynamics, legal frameworks, and ethical standards. The following categories emerged as seen in Figure 4.10 below and are discussed further down.

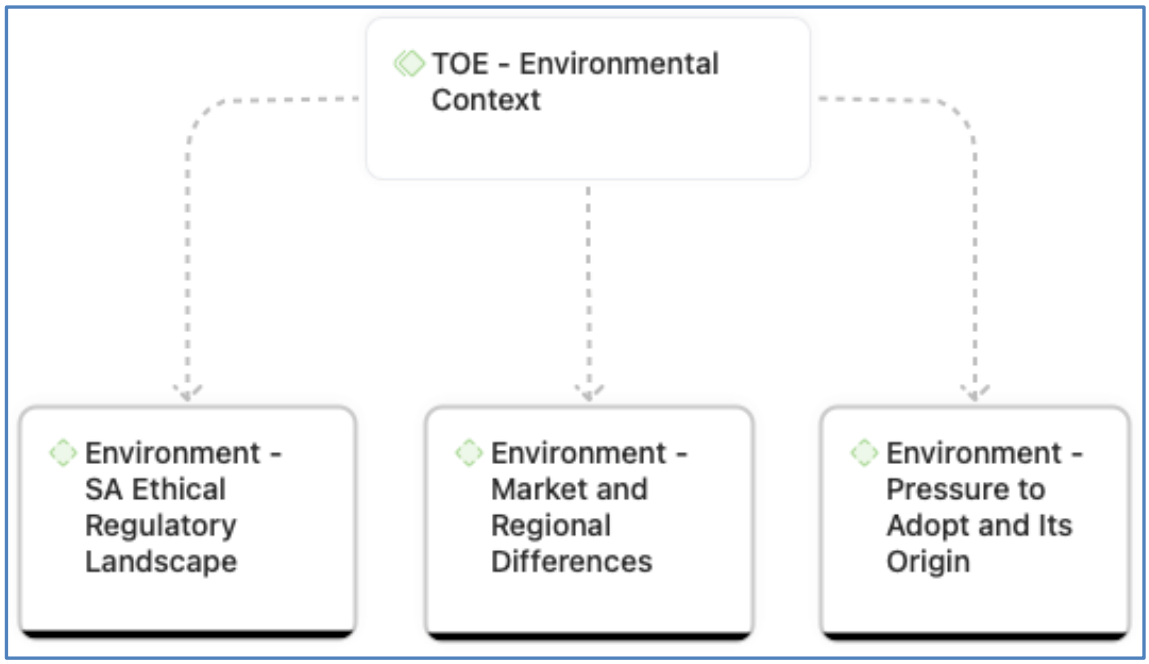

Figure 4.10 TOE – Environmental Context: Theme and Categories

Table 4.5 TOE – Environmental Context: Theme, Categories, and Quotations count

TOE – Environmental Context	Number of Quotations
Environment - Market and Regional Differences	13
Environment - Pressure to Adopt and Its Origin	8
Environment - SA Ethical Regulatory Landscape	4

Figure 4.10 and Table 4.5 show the TOE – Environmental Context theme and its associated categories as well as the quotations count within those categories. The details of Table 4.5 will be discussed below.

4.7.1 Environment - Market and Regional Differences

This category explores participants' views on how market and regional differences impact the adoption of GenAI in loyalty programmes. Participants highlighted varying levels of technological infrastructure and adoption across different regions, which influence the pace and effectiveness of GenAI integration. These insights shed light on the challenges and opportunities

organisations face when implementing GenAI, particularly in diverse markets with differing levels of readiness, resource availability, and technological capabilities. The perspectives shared by participants offer a valuable understanding of how market conditions and regional differences can shape the strategies for successfully adopting GenAI in LPs.

4.7.2.1 Market differences between South Africa and other regions

To explore the market differences between South Africa and other regions, the participants were asked the following question: *"How do you think the South African market differs in terms of AI adoption in loyalty programmes compared to other regions?"*

Participants (3, 6, 8, and 9) noted that South Africa is ahead of other regions in Africa in terms of GenAI adoption, largely due to the lack of infrastructure in those regions and the fact that they are still behind in cell phone penetration.

"Most organisations today use more advanced machine learning to ensure that their loyalty programmes are scalable. South Africa is doing well, but other countries are ahead in the AI space. I believe we are advanced in Africa. For example, within our organisation, South Africa is one of the leading markets. Egypt and Kenya also show significant advancement, but other markets are still lagging behind. However, they are catching up quickly." **– Participant_9**

"Let's say when you look at Africa, it's different because I think we're slightly more seasoned in terms of digital adoption, right? Whereas in the African market, there's still a lot of delay of adoption from a lot of markets out there is slightly catching up with phone penetration." **– Participant_6**

"In South Africa, we've adopted these technologies a bit more than some of the other markets. But, to be fair, the challenge in those other markets is often the lack of resources." **– Participant_8**

However, participants 5 and 7 offered differing views, suggesting that South Africa is slow in adopting these technologies. They attributed this to other countries having a better understanding of their customers and what appeals to them, while South Africa tends to prefer learning from others before following suit, which contributes to slower progress. They also noted that South Africa has been a developing country for a while, further hindering the pace of adoption. This view is supported by the following excerpts from the participants:

"In South Africa we take, we take a long time to get to where the rest of the world is and I think that's where we are. I think the other regions have really evolved the likes of Egypt uses GenAI really well and I think that's why they've got something like 90% engagement in their loyalty programme. They know exactly what appeals to their customers from a third party point of view, as well as from our organisation point of view because they've got that level, that high level of personalisation and they know exactly what their customers need when they need they even they have a day of a month which is aligned with their holy month and they personalise their programme according to that." **– Participant_5**

"I recently reviewed a global index on AI readiness, which evaluates African countries based on factors like digital infrastructure, human capital, technology innovation, and legal frameworks. South Africa ranks well, but interestingly, there's been criticism that it's not progressing as quickly as other countries like Kenya in terms of AI adoption." **– Participant_7**

Participants 1, 2, and 6 further added the rest of the world and all agreed that South Africa is behind the likes of China and the United States, this is supported by the participants' excerpts below:

"From a majority level, we're not at the same level as maybe the United States. They always like, you know, the leaders and you know forefront in terms of adopting these different technologies." **– Participant_1**

"There are more developed economies like the China's I mean right now, I think we are still trying to figure out how the 5G concept works when China is a few years ahead. I think they are starting to embrace the 6G on their side." **– Participant_6**

4.7.2.2 Challenges related to South Africa

To explore specific challenges related to South Africa, the participants were asked the following question: "*What specific challenges and opportunities do you see in the South African context regarding the use of generative AI in loyalty programmes?*"

Participants (3, 4, 7, 8, and 10) highlighted several significant challenges facing South Africa in adopting GenAI for loyalty programmes. A common theme in their responses was the limited infrastructure, skills development, and legal framework, all of which hinder effective GenAI adoption. The lack of advanced digital infrastructure, such as data centres, combined with difficulties in attracting skilled professionals due to immigration laws, slows progress. Additionally, there are concerns about local educational institutions not evolving fast enough to equip students with the necessary skills for AI, which further impedes the country's ability to fully leverage GenAI.

"In the South African context, the key challenges for using generative AI in loyalty programmes are skills development and the legal framework. One challenge is the difficulty in attracting skilled professionals due to strict immigration laws, which limits the transfer of talent. Additionally, there's a concern about whether local universities are evolving quickly enough to equip young people with the skills needed in fields like AI and digital technology." **– Participant_7**

"Yeah, it's the cost. As I said, that's a barrier to entry as well as the availability of models, availability of infrastructure, availability of access to vendors. There are a lot of people, people doing a lot of cool things, but it doesn't necessarily mean

that we in Africa have the fastest and quickest access to use it as well as, as I said, a lot of these things are stored in an R&D phase, even. And the first markets usually that get to test these things out are the US, the UK and the likes of Germany before it gets opened up globally." **– Participant_4**

"The challenges are similar when it comes to things like generative AI. It requires a lot of manpower and CPU power. Since we are integrating with multiple systems, we need to be more aggressive in terms of data processing and handling fast amounts of data. Are we equipped? Do we have the data centres? We might, but we don't have all the infrastructure that's needed. Some of these hyper-scalers may have a presence in South Africa, but when it comes to advanced models, they don't have them here because there has been little demand. Recently, though, as demand is growing, we are starting to open up to accelerate the adoption. Eventually, we will get there, but we are not really leaders when it comes to AI and loyalty programmes." **– Participant_9**

4.7.2 Environment - Pressure to Adopt and Its Origin

This category examines participants' perspectives on the external pressures organisations face to adopt GenAI in loyalty programmes. Participants discussed the influence of competition, customer expectations, and industry trends in driving the need for rapid adoption of emerging technologies like GenAI. These pressures often push organisations to innovate and integrate new technologies to stay competitive, enhance customer experience, and meet evolving demands. Insights from participants highlight the challenges and motivations behind the decision to adopt GenAI, offering a deeper understanding of the external forces shaping organisational strategies in the context of loyalty programmes.

4.7.1.1 Pressure to adopt these technologies

To explore if there was pressure to adopt these technologies, participants were asked the following question: *"Is there a sense within the organisation that there*

is pressure to adopt these emerging technologies, and where does this pressure originate?"

Of the 10 participants, eight participants (1, 2, 3, 4, 5, 6, 8, and 9) said they were pressured to adopt these technologies while two participants (7 and 10) said they would not call it pressure but excitement and appetite to explore them. The participants stated:

"I don't think there's pressure to adopt emerging technologies; rather, there's excitement to explore them." **– Participant_10**

"I can speak from a loyalty perspective. For loyalty, there's an immense amount of pressure. Because my programme needs to grow and the engagement needs to grow and that personalisation is very important. We have just been voted the best loyalty programme from our point of view this year and now the pressure is on because of how we need to maintain it. Only way that you maintain this is by evolving your programme and giving that customer that personal touch. So reminding me every day, calling me by name. If we send out WhatsApp messages and say Hi Hazel. That type of information or speak to me in my language, right?" **– Participant_5**

4.7.1.2 Origin of the pressure

The eight participants (1,2,3,4,5,6,7, and 8) who acknowledged the pressure to adopt GenAI highlighted various sources and factors, including a competitive market, group company initiatives, and evolving customer expectations. Some participants (9 and 10) also pointed to internal pressures to improve processes and reduce operational costs. These perspectives are supported by the excerpts below:

"Yes, there is pressure to continuously differentiate ourselves from our competitors." **– Participant_4**

"The internal drive is more about improving and optimising processes, whereas external pressure comes from the competitive market—wanting to stay ahead and remain relevant." **– Participant_10**

"We do have a pressure of adopting it I mentioned earlier to you the Technology Strategy and one of the key points on a Technology Strategy is around generative AI and we do have a pressure of adopting it. But yeah, so there is pressure from a technology perspective to deliver on generative AI use cases and it comes from our Group company." **– Participant_2**

"The pressure is by virtue of the fact that the customer is evolving. Using technology in a very different way, what our devices can do now versus what our devices could do when I was still studying law years ago was very different." **– Participant_7**

4.7.3 Environment - SA Ethical Regulatory Landscape

This category focuses on exploring participants' views on the ethical and regulatory landscape in South Africa, particularly concerning the adoption of GenAI in loyalty programmes. The discussion centred around the challenges posed by existing legal frameworks, compliance requirements, and the impact of these regulations on the pace of technology adoption. Participants acknowledged the importance of regulations, especially in areas like data privacy, security, and consumer protection. However, they also pointed out that while these regulations are necessary, the lack of specific South African laws tailored to emerging technologies like GenAI is a significant challenge. This gap in the legal framework creates uncertainty and complicates the process of adopting and scaling these technologies in the country.

The following question was posed to the participants to get their views: "*Are there any ethical/regulatory requirements that you know of in adopting generative AI in the organisation?*"

Participants (5, 7, 9, and 10) shared that the regulations like POPIA and GDPR are key in ensuring data privacy is adhered to and the organisations has included these in their AI policies and also ensures that they adhere and comply to these when handling and dealing with customer data.

"There are policies that govern AI and outline how data should be treated. We focus on improving and ensuring proper data governance around the information we hold. When it comes to security, it's also crucial. We need to consider data privacy regulations such as GDPR and POPIA." **– Participant_9**

"So that's exactly what we have covered in our AI policy. We have said these are essentially the areas we need to look after and then what we do have and it's a practice that we started still when the GDPR came out and also other African countries started adopting laws, we started looking at how do we get to a point where we use these new technologies in a responsible way, bearing in mind that it impacts on consumer rights, broad human rights, and specifically privacy." **– Participant_7.** They further added that the data localisation laws that prohibit data from being shared across countries pose a challenge in leveraging AI solutions and deployment of these solutions.

"For instance, in leveraging AI for fraud detection across Africa, access to location data could significantly improve outcomes, but regulatory restrictions, like data localisation laws, pose challenges. These regulations, differing across African countries, complicate the deployment of consistent AI solutions, as data often cannot be shared or stored across borders. This fragmented legal framework impacts the quality of input data and limits AI's potential." **– Participant_7.** Additionally, they added that the South African government is lagging behind in forming their own legal frameworks and policies which then adds to slower progression in AI adoption.

"However, the legal framework is still evolving, and the government is working to create policies that balance all stakeholders' needs. These challenges, particularly around skills and legal regulations, are the main barriers to progress

in AI adoption here." **– Participant_7.** *"At the moment, our organisation is borrowing from international frameworks, but I must clarify that I'm cautious about simply importing laws from the global north, like the EU's AI Act, and applying them wholesale. AI is complex, and we need to consider the African context when developing regulations. While we look at international best practices, the responsibility for creating a local ethical and regulatory framework lies with the government. This process involves drafting policies, implementing them, and eventually turning them into legislation."* **– Participant_7**

The environmental context of adopting GenAI in South Africa's loyalty programmes reveals both opportunities and challenges. Participants highlighted various factors, including market and regional differences, pressure to adopt, and the ethical regulatory landscape, which shape the pace and nature of GenAI adoption. While South Africa is seen as lagging behind other regions in terms of technology infrastructure and skills development, there is growing recognition of the importance of adopting GenAI to stay competitive. Pressure to adopt these technologies often stems from internal goals to improve processes and reduce operational costs, as well as from external competitive forces.

Participants emphasised that while South Africa's regulatory environment, especially in data privacy and security, plays a crucial role in ensuring the ethical use of technology, the lack of specific laws for emerging technologies like GenAI poses a challenge. As the country works to address these regulatory gaps and enhance its infrastructure, there is optimism about the potential for accelerated adoption in the future. Overall, the environment for GenAI adoption in South Africa's loyalty programmes is evolving, with both regulatory frameworks and market readiness influencing the rate of progress.



Figure 4.11 Concept analysis with recurring keywords in closing Environmental Context theme

Figure 4.11 above illustrates key terms related to the environmental context of GenAI adoption in South Africa's loyalty programs. Words like pressure, market, and competitor highlight external forces driving adoption, while technology, infrastructure, and capacity point to the challenges of adapting to technological needs. Data, regulation, and policy emphasise the role of the regulatory environment, including data privacy concerns. South Africa, Africa, and region reflect the unique market conditions influencing adoption, while terms like cost, barrier, and availability underscore the practical challenges organisations face.

4.8 Chapter Summary

This chapter provided a comprehensive analysis of the key themes identified in the study using ATLAS.ti version 25, framed within the TOE framework with an

added element to understand the current knowledge and practices within the organisation. The technological context highlighted perceived benefits, challenges, GenAI capabilities, and strategies to address privacy and security concerns. The organisational context examined AI-related policies, governance structures, and participants' knowledge of AI applications within loyalty programmes. Lastly, the environmental context emphasised the role of market and regional differences, adoption pressures, and the regulatory landscape in shaping decisions around GenAI integration. Together, these insights provide a holistic understanding of the factors influencing the adoption of GenAI in loyalty programmes, paving the way for informed recommendations in the subsequent chapter.

The next chapter discusses the findings of this study as presented in this chapter to answer the research questions for this study.

CHAPTER 5. DISCUSSION OF THE RESEARCH FINDINGS

5.1 Introduction

The purpose of this chapter is to critically analyse the findings presented in Chapter 4 and relate them to the research questions, existing literature, and the theoretical framework of this study. This aims to bridge theoretical perspectives with the practical implications of adopting GenAI in loyalty programmes. The main focus of this chapter is to explore how GenAI can transform LPs in South Africa, the challenges associated with its adoption, and the implications for businesses in the region. Using the TOE framework, the discussion highlights the key Technological, Organisational, and Environmental factors influencing GenAI adoption while also addressing participants' understanding of AI and its current applications.

5.2 Research Questions

This study aimed to critically evaluate the adoption of GenAI in loyalty programmes within the South African context, focusing on its transformative potential, identifying challenges, and exploring its broader implications for businesses and society. The integration of GenAI into LPs presents unique opportunities to redefine customer engagement, enhance operational efficiency, and address market-specific needs in South Africa. However, it also raises significant considerations around organisational readiness, ethical concerns, and the societal impacts of advanced AI technologies.

To thoroughly explore these aspects, the following research questions were formulated:

- How can generative AI be adopted to customise loyalty programme rewards and incentives for each customer?

- What are the potential benefits and obstacles associated with integrating generative AI into loyalty programmes?
- What are the ethical considerations and societal impacts of using generative AI in loyalty programmes within the South African context?

The following sections critically analyse the findings related to each research question, structured using the TOE framework. This structure highlights the technological, organisational, and environmental factors influencing GenAI adoption, integrating participant insights, existing literature, and the theoretical underpinnings of this study to offer a comprehensive understanding of the implications for loyalty programmes in South Africa.

5.2.1 How can generative AI be adopted to customise loyalty programme rewards and incentives for each customer?

The integration of GenAI into loyalty programmes presents a significant opportunity to enhance customer engagement through highly personalised rewards and incentives. Findings from this study reveal that the organisation is already leveraging big data and ML technologies to deliver personalised loyalty offerings. This established foundation positions the organisation well for its planned adoption of GenAI within the next 12 to 18 months. However, participants indicated that while ML is being utilised, it has not reached its full potential. Current personalisation efforts are limited to segment-based approaches, relying on group characteristics such as age, location, and spending patterns, rather than delivering fully individualised recommendations.

Adopting GenAI represents a logical step forward, enabling a deeper level of personalisation. This aligns with Chui et al. (2023), who noted that GenAI has rapidly become an integral tool in marketing and sales due to its ability to craft tailored messages at scale, customised to individual customer interests. GenAI's advanced capabilities can significantly enhance loyalty programmes by delivering

personalised communications and recommendations that resonate with each customer.

The study highlights GenAI's capacity to enhance customer engagement through its ability to facilitate highly personalised communication. Participants emphasised that GenAI enables businesses to customise updates, promotions, and loyalty rewards based on individual customer preferences, fostering stronger relationships. This observation aligns with Kushnarevych (2024), who reported that AI-driven technologies use customer interaction data, purchase behaviour, and preferences to deliver highly relevant messages. By ensuring that communication is meaningful and tailored to individual needs, GenAI enhances customer loyalty and engagement, making brand interactions more natural and impactful.

The organisation’s existing use of big data and ML demonstrates its readiness for GenAI adoption. Participants from the technology side reported that GenAI has already been adopted in specific areas of the business, with some use cases implemented. However, business-side participants were largely unaware of these developments, which hindered their ability to provide insightful feedback on GenAI’s capabilities. This misalignment underscores the need for greater collaboration between business and technology teams.

The technological infrastructure of the organisation is well-suited for GenAI integration. According to Zhuhadar and Lytras (2023), technologies such as AI, ML, and DL complement one another, creating a foundation for advanced personalisation capabilities offered by GenAI. This progression enables organisations to deliver more sophisticated and targeted loyalty rewards. Similarly, Felemban et al. (2024) emphasised the importance of "technology readiness" in the TOE framework, highlighting how an organisation’s existing expertise and infrastructure are critical for adopting new technologies efficiently.

Despite the organisation's readiness for GenAI adoption, the study identified a strategic misalignment between the business and technology teams. Business-side participants were more informed about the organisation's plans for GenAI, while technology participants offered detailed insights into its potential applications. This divide stems from the organisational structure, where the business team shapes loyalty programme strategies, and the technology team focuses on implementation.

The TOE framework, as outlined by DePietro et al. (1990), stresses the importance of aligning technology strategies with business objectives and environmental realities. Addressing this misalignment is crucial for the effective integration of GenAI, as it ensures that both strategic vision and technological capabilities are aligned to achieve organisational goals.

Participants highlighted that GenAI offers unique advantages, particularly in its ability to generate new content and adapt communication styles to individual customer preferences. Unlike traditional ML, which primarily relies on analysing existing datasets to make recommendations, GenAI can create entirely new content. This aligns with the observation made by Kılınç and Keçecioğlu (2024), who highlighted that generative AI, in contrast to traditional AI systems that operate based on fixed rules and patterns, employs advanced models to learn from data and produce outputs that often resemble content created by humans. This capability represents a significant advancement, enabling more dynamic and efficient customisation of loyalty programmes. Kshetri et al. (2024) share the same sentiments and add that digital technologies enhance customer experience by enabling personalised, timely, and relevant communications, which boost engagement with products and brands, ultimately improving customer loyalty and firm performance. They emphasise that GenAI, with its ability to create human-like and customisable content, has an even greater impact on marketing processes and outcomes compared to previous digital technologies.

This study underscored the transformative potential of GenAI in revolutionising loyalty programmes. By leveraging the organisation's existing technological foundation and GenAI's advanced capabilities, the organisation is well-positioned to enhance customer engagement through personalised rewards and communication. However, addressing the strategic misalignment between business and technology teams is essential to ensure a seamless and effective integration of GenAI into the loyalty programme.

5.2.2 What are the potential benefits and obstacles associated with integrating generative AI into loyalty programmes?

The sections below went into potential benefits and obstacles associated with the adoption and integration of GenAI into loyalty programmes.

5.2.2.1 Potential Benefits

Generative AI holds the promise of transforming customer engagement through unparalleled personalisation, yet its adoption comes with complexities that organisations must address to realise its benefits. As Brynjolfsson and McAfee (2017) noted, AI represents a highly versatile technology of our time, with the potential to impact every industry by reshaping opportunities and challenges on a significant scale. This perspective aligns with DePietro et al., (1990)'s observation in the TOE framework that technological advancements are key drivers of organisational transformation, offering both significant potential benefits and obstacles to overcome. These insights underscore the transformative power of generative AI while emphasising the importance of navigating its associated challenges to harness its capabilities effectively within loyalty programmes.

Although the organisation has already laid the foundation for integrating generative AI into its operations through the use of machine learning, the study revealed both the benefits and challenges that are likely to arise as it adopts GenAI in its loyalty programme. Emerging keywords representing the benefits of integrating GenAI into the loyalty programme included improved engagement,

hyper-personalisation, enhanced customer experience, increased loyalty to the brand, and more effective communication. A significant concern, however, was that the current programme offers generic rewards, which participants believed GenAI integration could overcome by providing tailored experiences.

Hyper-personalisation was frequently mentioned as a transformative benefit of GenAI, offering the ability to go beyond basic demographic or transactional data to include insights from real-time behavioural patterns, preferences, and even sentiment analysis. This advanced level of personalisation enables the creation of truly individualised offers and recommendations that resonate deeply with each customer, fostering a sense of value and relevance. For instance, participants envisioned a loyalty programme that not only predicts customer needs based on past behaviour but also anticipates their future preferences, offering timely and meaningful incentives that encourage repeat engagement. This is in line with Chui et al., (2023) on the enhanced use of data that comes with integrating generative AI into an organisation's operations effectively.

Most participants also highlighted tailored communication as a key differentiator, suggesting that the programme could adapt to customers' communication preferences, ultimately fostering higher engagement and an improved overall experience. Additionally, participants recognised GenAI's ability to generate engaging and contextually relevant content, such as personalised recommendations, product descriptions, and promotional messages, which could further enrich the customer journey and strengthen the brand's connection with its audience. The participants also emphasised the benefits of automating and scaling customer interactions through advanced chatbots. These chatbots could enhance the customer experience by providing 24/7 support, reducing call centre labour costs, and ensuring consistency and accuracy, provided they have access to high-quality data. However, Ferraro et al. (2024) argue that the use of chatbots in customer service presents a double-edged sword. While these technologies can foster a stronger connection to the brand for some customers, others may

feel isolated, potentially affecting the overall customer experience. This dilemma also emerged in the study's findings, particularly regarding the trade-off between reducing operational costs and the potential loss of jobs for human workers in call centres.

Chaffey and Smith (2022) emphasise the crucial role of Search Engine Optimisation (SEO) and product search in enhancing customer engagement and satisfaction within loyalty programmes. They argue that by optimising digital content for search engines, organisations can increase the programme's visibility, which in turn attracts new customers. Additionally, effective product search functionality improves the user experience by enabling customers to easily find and redeem rewards, thereby reinforcing loyalty and engagement. Similarly, Chui et al. (2023) highlight the importance of SEO and product search personalisation, noting that generative AI significantly enhances technical SEO, leading to higher conversion rates and cost reductions. They also point out that generative AI assists in creating SEO-focused content and distributing targeted marketing materials for optimised sales outcomes. Furthermore, AI-driven product discovery and search personalisation are transforming e-commerce by tailoring product recommendations and descriptions to individual customer profiles, utilising text, images, and speech inputs to improve the customer experience and increase website conversion rates (Chui et al., 2023).

While these principles could undoubtedly be applied to LPs, none of the participants explicitly identified them as direct benefits in the context of their programme. This oversight may stem from a traditional focus on the primary objectives of LPs: enhancing product visibility, attracting new customers, and retaining existing ones through improved CX and engagement. However, this presents an exciting opportunity to broaden the perspective on how generative AI can redefine these goals, offering innovative pathways to deepen personalisation and deliver unmatched value to customers.

5.2.2.2 Potential Challenges

Adopting GenAI in LPs presents organisations with various challenges that must be navigated to fully realise its transformative potential. Within the framework of the TOE model, these challenges span the complexity of integrating advanced technologies into existing systems, the readiness of organisational structures and resources, and the pressures exerted by external factors such as competition and regulatory compliance. As DePietro et al. (1990) highlight, the relationship of these dimensions often determines the success or failure of technology adoption. Specifically, concerns around data privacy, ethical implications, and the scalability of AI solutions emerge as significant barriers, requiring organisations to carefully balance innovation with operational feasibility and societal expectations.

The findings of this study reflected similar sentiments among participants, who raised significant concerns regarding the challenges associated with adopting GenAI in LPs. Key issues highlighted included operational costs, data privacy, data quality, and security. Many participants acknowledged that the reliance of GenAI on extensive datasets already harnessed through Big Data and machine learning, amplifies the risks surrounding data privacy. This dependence not only increases the potential for sensitive information to be exposed but also places greater emphasis on the need for stringent data governance frameworks. Additionally, the accuracy and quality of the data emerged as critical concerns, with participants expressing apprehension about the downstream effects of flawed or incomplete data on GenAI's outputs. Operational costs were another focal point, as implementing GenAI solutions often requires significant financial investment in infrastructure, expertise, and ongoing maintenance.

Collectively, these challenges underscore the complexities organisations face, as they must carefully balance the promise of innovation with the tangible costs and

risks inherent in adopting such transformative technologies. Multiple authors have echoed the same sentiments as the statements by the participants of this study regarding data privacy, security, and cost challenges and these go as deep as organisation-level challenges and not just technological (Kshetri et al., 2024; Yoo & Piscarac, 2023; Klaus & Oyeleke, 2024). They further added challenges around skill sets in the organisation to be able to successfully and effectively integrate these technologies into their operations.

Organisational culture plays a pivotal role in the successful adoption of new technologies, including GenAI, as it shapes the attitudes, behaviours, and readiness of employees and leadership alike. As Schein (2010) emphasises in his seminal work on organisational culture, the deeply embedded values and norms within an organisation can either facilitate or hinder technological change. A culture that fosters innovation embraces change, and prioritises learning is more likely to overcome the inertia and resistance often associated with adopting disruptive technologies. Similarly, organisations with rigid hierarchies or risk-averse cultures may struggle to integrate such advancements effectively.

Furthermore, Cameron and Quinn (2011) highlight that alignment between an organisation's cultural orientation such as a focus on collaboration or competitiveness and its technological objectives is critical for sustained success. In the context of GenAI adoption, cultivating a culture of trust, openness, and adaptability becomes especially important, as it encourages employees to engage with new systems, mitigates the fear of job displacement, and ensures alignment between human and technological capabilities. The TOE framework emphasises that the organisational dimension of the framework encompasses internal characteristics such as leadership, resources, structure, and culture, which collectively shape how an organisation responds to technological innovation (DePietro et al., 1990).

The study revealed that the organisation's culture surrounding technology adoption and learning is primarily driven and supported by its leadership team, with one leader noting that this culture is central to their values. However, responses from employees were mixed, indicating a need for effective change management and follow-up on the established strategies to ensure full organisational support for the innovation and a clear understanding of its value to both the company and its daily roles.

Regarding the organisation's readiness to integrate GenAI into its operations, there were also varied responses. However, this also highlighted that the organisation is ahead in several areas, such as upskilling its workforce, particularly those already working on machine learning technologies, as well as helping the broader organisation recognise the value of this innovation (Klaus & Oyeleke, 2024). Most participants also emphasised the mandatory GenAI training being provided to staff to address these challenges.

The study also revealed that the organisation has made significant strides in addressing some of these challenges to ensure they unlock the full potential of GenAI. These efforts are geared towards delivering highly personalised customer experiences, improving operational efficiencies, and gaining a deeper understanding of customer behaviour. Notably, the organisation has proactively ring-fenced the environment in which GenAI use cases are deployed, ensuring that its applications remain secure and compliant with internal standards. Additionally, the organisation maintains transparency around its use of customer data, emphasising that data is only utilised for specific, intended purposes and is not repurposed for training other models. This commitment to ethical data use fosters trust with customers and mitigates concerns around data privacy, further supporting the organisation's goal of leveraging GenAI to its full potential.

5.2.3 What are the ethical considerations and societal impacts of using generative AI in loyalty programmes within the South African context?

Generative AI (GenAI) presents both transformative opportunities and complex ethical challenges. According to Dwivedi et al. (2023), the potential impacts of GenAI extend across organisations, individuals, and society, offering both positive and negative outcomes. These concerns are particularly important in the context of loyalty programmes, where ethical and legal considerations are critical. Gupta et al. (2024) and Bhattarai (2023) emphasise the need to address these ethical considerations when integrating GenAI into marketing strategies or loyalty programmes. Such ethical concerns align closely with the Technology-Organisation-Environment (TOE) framework, which underscores the environmental context's role in technology adoption. By incorporating ethical principles into the adoption process, organisations can responsibly navigate AI implementation, ensuring that AI technologies benefit both businesses and society.

The study found that participants were keenly aware of ethical considerations surrounding AI, particularly biases and external factors that guide these concerns within organisations. Many participants agreed with the authors that biases in AI technologies are a significant issue. Although these biases are recognised globally, participants noted that their organisations are actively working to minimise biases in AI models. A recurring issue, however, is the use of models built and trained in other countries, which may not align with the local context in South Africa. Despite this, participants acknowledged their awareness of these biases and their root causes.

Some participants indicated that biases were embedded in their loyalty programme's segmentation strategy, which required differential treatment of groups. Others suggested that biases were the result of using models developed abroad, which had not been adapted to the South African context. One participant

noted that their organisation is addressing this challenge by establishing a centre of excellence in South Africa to localise models and build them within the country they are used. In contrast, another participant mentioned that their organisation prefers to use pre-trained models, tweaking them for specific GenAI use cases, which could point to strategic misalignment or silos within the organisation.
A common strategy among participants to address these ethical challenges is the implementation of a “hyper care” approach, which involves continuous post-deployment monitoring of AI models. This process allows for the adjustment of models where biases or hallucinations arise. Furthermore, the inclusion of a human element in the process ensures the authenticity of the models, safeguarding customer data privacy and reducing biases. This aligns with the Human-in-the-loop (HITL) approach, which many authors, including Mosqueira-Rey et al. (2022), Wu et al. (2022), and Isahit (2023), recommend. HITL ensures that humans collaborate with AI for better outcomes, rather than leaving the decision-making entirely to machines.

Gupta et al. (2024) also emphasise the importance of transparency and data protection when adopting GenAI in marketing. Using ChatGPT as an example, they stress the necessity of aligning AI applications with customer expectations while maintaining stringent privacy safeguards. They caution that AI-driven marketing strategies, such as those involving ChatGPT, could unintentionally reinforce biases or stereotypes due to flaws in the training data, with potential negative consequences for marginalised communities.

The study further revealed that the organisation is taking steps to address these ethical issues by creating governance structures, including steering committees, and implementing legal frameworks to manage data privacy, biases, and other ethical concerns. Participants also highlighted that their parent company’s prior experience with testing AI technologies has provided valuable lessons and guidance for implementing best practices. They mentioned the use of proof of concepts to test new technologies before scaling them for broader applications.

Participants noted that their organisation is also committed to complying with South African data protection laws, such as the Protection of Personal Information Act (POPIA), and international frameworks like the GDPR. This compliance ensures that customer data is used transparently and not for unintended purposes, as outlined in their AI blueprint. Ooi et al. (2023) support the importance of adherence to such regulations to mitigate privacy risks. However, it was noted the swift progress of AI technologies frequently surpasses the pace at which regulatory frameworks are developed, making it difficult to address the ethical and societal impacts of AI effectively (Mhlanga, 2024). Participants highlighted the slow progress in South Africa's AI regulatory landscape, which lags behind other regions despite having the necessary infrastructure.

Nevertheless, the South African government has made strides in addressing these challenges. In August 2024, the government published the National AI Policy Framework, which was open for public comments until November 2024. The framework outlines a strategic vision for the responsible adoption and development of AI technologies in South Africa. Its objectives include fostering AI-driven economic growth, ensuring ethical integration of AI, protecting human rights, and addressing concerns around privacy and data security. The framework also aims to improve education and skills development in AI to equip the future workforce with the necessary expertise. Furthermore, the policy seeks to position South Africa as a leader in AI innovation, with regulations and laws designed to ensure responsible AI use across sectors. Ultimately, the framework lays the foundation for future legislation to support the sustainable and inclusive deployment of AI, balancing innovation with societal needs (South African Government, 2024).

5.3 Chapter Summary

This chapter discussed the findings from the participants, the literature review, and my analysis in addressing the research questions posed in Chapter 2. By

effectively implementing generative AI, the organisation has the potential to achieve hyper-personalisation of rewards and incentives, further enhancing customer loyalty and engagement. This personalised approach would enable the organisation to better cater to individual customer preferences, improving programme success and customer satisfaction. The ability to offer tailored rewards in real-time can create unique, relevant experiences for customers, fostering deeper connections with the brand.

However, several challenges must be addressed to realise this vision. A misalignment in strategies across different divisions and departments creates silos, leading to inefficiencies and redundant efforts. While the leadership team has been successful in fostering a culture of learning and upskilling, there is no clear strategy to reinforce, monitor, and assess whether this knowledge is effectively transferred to employees. This gap has resulted in mixed attitudes towards the adoption of new technologies. Additionally, change management did not emerge strongly in the analysis, impacting employee buy-in. On a positive note, the organisation has established robust standards and principles regarding model deployments and the use of customer data. These measures ensure customer data is kept private, secure, and used for its intended purpose, while also minimising bias in AI models.

The next chapter presents the conclusion and provide recommendations based on the study's findings.

CHAPTER 6. CONCLUSIONS & RECOMMENDATIONS

6.1 Introduction

The conclusion of this study marks an important reflection on the role of GenAI in revolutionising loyalty programmes, specifically within the South African context as outlined through the research questions in Chapter 1. By exploring how GenAI can enable hyper-personalisation, addressing the benefits and challenges of its adoption, and examining its ethical implications, the study provides a foundation for actionable insights. This chapter synthesises the key findings and presents tailored recommendations aimed at facilitating practical application across diverse stakeholders.

Key stakeholders stand to benefit from these recommendations in the following ways:

- **Organisations implementing loyalty programmes**: can utilise these insights to strategically adopt GenAI for enhancing customer engagement and loyalty outcomes.
- **Policy and regulatory bodies**: can draw on these findings to create frameworks that encourage innovation while ensuring data privacy, ethical compliance, and societal alignment.
- **Technology developers and consultants**: can adapt their solutions to address the needs and constraints identified, ensuring successful implementation within loyalty ecosystems.
- **Academic and research communities**: may find these insights valuable in advancing discussions on GenAI and its implications for consumer-focused innovation.

The study's findings highlighted that while GenAI offers unparalleled potential for personalising loyalty programmes, its implementation requires organisations to overcome technological, organisational, and ethical challenges. These include

addressing data privacy concerns, managing resource limitations, ensuring compliance with regulatory frameworks, and building capacity for responsible AI use. Despite these obstacles, the research underscores the transformative value that GenAI can unlock when approached thoughtfully and strategically.

Chapter 6 concludes the study by consolidating these insights and providing clear, practical recommendations to bridge the gap between opportunity and execution, ensuring that the adoption of GenAI not only drives business value but also aligns with ethical standards and societal needs.

6.2 Conclusion regarding how generative AI can be adopted to customise loyalty programme rewards and incentives for each customer

Generative AI presents a powerful tool for transforming loyalty programmes through hyper-personalisation. By leveraging customer data such as preferences, behaviours, and purchasing patterns, organisations can design rewards and incentives tailored to individual needs, fostering deeper customer engagement and loyalty. GenAI's ability to analyse large datasets and generate real-time insights allows businesses to move away from generic loyalty structures, providing personalised experiences that drive satisfaction and retention. However, its adoption is not without challenges.

Key obstacles include poor data quality, which affects the accuracy of AI-driven insights, and the difficulty of integrating GenAI tools with existing systems. Organisations also face high implementation costs and resource limitations, which can hinder scalability. Additionally, ensuring compliance with data privacy laws, such as POPIA, and addressing customer concerns about how their data is used remain critical barriers to adoption.

6.2.1 Recommendations:

- Launch small-scale pilot projects to test and refine the use of GenAI in personalising loyalty programmes. These pilots will help optimise AI-driven customisation, improving customer engagement and ensuring the approach is effective before full-scale implementation.
- Provide comprehensive training programmes for internal teams to manage, optimise, and continuously improve AI tools, empowering them with the skills and knowledge necessary to ensure the system's long-term sustainability and effective use.
- Develop clear and user-friendly communication strategies to reassure customers about the ethical use of their data.
- Partner with trusted technology providers to leverage external expertise while managing integration costs.
- Continuously monitor the fairness and relevance of AI-generated rewards, ensuring they align with customer expectations through regular feedback and algorithm adjustments.

6.3 Conclusions regarding the potential benefits and obstacles associated with integrating generative AI into loyalty programmes

Integrating GenAI into loyalty programmes offers several compelling benefits, including enhanced personalisation, increased operational efficiency, and cost savings. GenAI's ability to analyse vast amounts of customer data in real-time enables the creation of dynamic, individualised rewards systems that keep customers engaged and improve their long-term loyalty. Automation of tasks such as customer segmentation, content generation, and offer personalisation also leads to operational efficiencies and reduced manual effort. However, the integration process comes with its own set of obstacles that organisations must navigate.

Challenges include high upfront costs associated with GenAI adoption, the complexity of system integration with existing infrastructure, and the need for specialised talent to manage AI technologies. Additionally, ethical concerns such as algorithmic bias and privacy risks remain significant hurdles. Data security, especially within the South African regulatory context, further complicates the widespread adoption of GenAI.

6.3.1 Recommendations

- Prioritise cost-effective pilot programmes to demonstrate GenAI's value and adjust implementation strategies based on initial results.
- Focus on staff training and development programmes to build in-house AI expertise, reducing reliance on external consultants.
- Establish an ethical oversight board to monitor GenAI's impact on customer data and decision-making processes.
- Enhance data protection strategies to ensure compliance with regulations such as POPIA and reassure customers about the security of their data.
- Explore partnerships with AI technology providers to streamline integration and reduce costs associated with adoption.

6.4 Conclusions regarding the ethical considerations and societal impact of using generative AI in loyalty programmes within the South African context

The use of GenAI in loyalty programmes introduces significant ethical considerations and societal impacts, particularly in the South African context, where issues of data privacy, equity, and inclusion are paramount. Ethical concerns such as algorithmic bias, over-surveillance, and data misuse must be carefully managed to ensure that the adoption of GenAI does not excessively affect marginalised groups. The societal impact of AI-driven loyalty programmes

could either aggravate or reduce existing inequalities, depending on how the technology is deployed. At the same time, when implemented responsibly, GenAI has the potential to foster greater inclusivity by enabling more tailored and reasonable reward structures, helping to empower underserved communities. The regulatory environment in South Africa, including laws such as POPIA and emerging frameworks like the National AI Policy, requires organisations to carefully navigate compliance, ensuring that data collection and use respect customers' rights and promote transparency.

6.4.1 Recommendations:

- Create an ethics review board or advisory committee to oversee the development and deployment of GenAI in loyalty programmes, ensuring fairness and transparency.
- Implement clear communication strategies to educate customers about the value of AI-driven personalisation and address concerns about data privacy.
- Engage with South African regulators to ensure that AI applications align with the National AI Policy and other relevant legal frameworks.

6.5 Suggestions for further research

This study offered valuable insights into the potential benefits, challenges, and ethical considerations of adopting GenAI in loyalty programmes within the South African context. However, several limitations must be acknowledged. The scope is primarily focused on a South African organisation, which may limit the generalisability of the findings to other organisations and regions with different regulatory, economic, or cultural factors. Additionally, while interviews were conducted with key stakeholders, the sample size may not fully capture the diverse perspectives across various industries. The study also reflects current knowledge and practices; given the fast pace of technological advancements, future research may need to consider how these developments impact the integration of GenAI in loyalty programmes. Furthermore, this research mostly

captures organisational viewpoints, leaving customer experiences, particularly in terms of privacy, data security, and trust so this area was underexplored.

6.5.1 Proposed Future Research Directions

- **Broader Geographical Context**: Expanding research to include international case studies would help identify region-specific challenges and strategies in adopting GenAI for loyalty programmes. Comparative studies could also uncover best practices and offer a broader perspective on the global impact of AI-driven personalisation.
- **Larger Sample Size**: To enhance the generalisability of findings across different regions and customer segments in South Africa.
- **Diverse Industry and Organisational Levels**: Expanding research across various sectors beyond the current focus would provide a more comprehensive understanding of industry-specific challenges and opportunities. Additionally, studying employees at different organisational levels from frontline staff to middle management could offer insights into their impact on daily operations, customer interactions, and implementation challenges.
- **Longitudinal Studies on Impact**: Conducting long-term studies would allow researchers to assess the ongoing impact of GenAI on both customer behaviour and business outcomes. Tracking changes over time can provide insights into the sustainability and scalability of AI-driven loyalty programmes as customer preferences and technologies evolve.
- **Customer-Centric Research**: Future studies should include a focus on customer experiences with GenAI in loyalty programmes, particularly regarding trust and perceptions of privacy. Investigating how customers feel about the use of their personal data, and whether AI-driven personalisation strengthens or weakens loyalty, will be crucial for developing more effective, customer-first loyalty strategies.

- **Ethics and Algorithmic Bias**: Given the ethical concerns highlighted in this study, there is a need for further research into the potential biases in GenAI systems and their implications for fairness in loyalty programmes. Exploring how organisations can mitigate biases, ensure transparency, and maintain ethical standards in AI-driven decision-making would be valuable for fostering responsible AI adoption.
- **Regulatory Impact and Policy Development**: As regulatory frameworks evolve; future research should explore how policies like the National AI Policy in South Africa influence the adoption and ethical use of GenAI in business practices. Understanding the regulatory landscape will help organisations navigate compliance and align their GenAI strategies with evolving legal requirements.
- **Incorporate Interdisciplinary Perspectives**: Integrate elements like psychological, sociological, and economic frameworks to deepen the understanding of customer motivations and behaviours in loyalty programme engagement, enabling a more holistic analysis of the factors that influence participation and loyalty.
- **Case Study:** Conduct an in-depth case study of specific loyalty programmes or organisations implementing Generative AI to provide richer, contextual insights and validate the conceptual framework in real-world settings.

6.6 Conclusion

This research explored the potential of integrating GenAI into loyalty programmes, examined its benefits, challenges, and ethical implications within the South African context. Through the lens of personalisation, GenAI presents immense opportunities for enhancing customer loyalty by creating customised rewards and incentives that drive engagement. However, the successful adoption of this technology is contingent upon overcoming several barriers, including data quality issues, integration complexities, and regulatory compliance, especially with laws like POPIA. The study has also underscored the importance of

addressing ethical concerns, particularly about privacy, algorithmic bias, and inclusivity, to ensure that GenAI is used responsibly in loyalty programmes.

While this research has contributed valuable insights, it also highlights areas for future exploration. Further studies on the global adoption of GenAI, long-term impacts on customer behaviour, and deeper dives into customer perceptions will be crucial in advancing the understanding of AI in loyalty programmes. Additionally, as AI technology continues to evolve, ongoing research into mitigating biases and ensuring compliance with emerging regulations will be necessary to guide businesses in their AI adoption strategies.

In conclusion, while GenAI holds great promise for revolutionising loyalty programmes, its adoption must be approached with careful consideration of the technological, ethical, and societal challenges involved. By addressing these challenges proactively, businesses can unlock the full potential of GenAI to create more personalised, efficient, and equitable loyalty experiences for customers.

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APPENDIX A: PARTICIPANT INFORMATION SHEET

Dear Participant,

My name is Ramaesela Hazel Digama, and I am currently pursuing a Master's degree in Management – Digital Business field at the University of the Witwatersrand Business School. As part of my academic requirements, I am conducting research on the adoption of generative AI in loyalty programmes in South Africa under the supervision of Dr Kebashnee Moodley.

The purpose of this study is to explore how generative AI can be used to customise and tailor loyalty programme rewards, benefits, and incentives for individual customers, as well as to understand the potential benefits and challenges of integrating generative AI into loyalty programmes in South Africa.

As a senior management professional involved in the adoption or planning of generative AI in your organisation's loyalty programme, I would like to invite you to participate in this research study. Your insights and experiences are invaluable to understanding the current landscape and future potential of generative AI in this context.

Interview Details:

- Duration: Approximately 30-45 minutes
- Format: Informal virtual interview conducted via Microsoft Teams or face-to-face
- Language: Primarily in English
- Recording: The interview will be recorded for transcription purposes

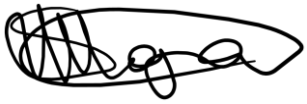
Confidentiality and Ethics:

- Your name and identity will not appear in any reports or publications.
- All responses will be treated as strictly confidential and used solely for academic purposes.
- Anonymity will be ensured by referring to participants as Participant 1, Participant 2, etc.
- Data will be stored on encrypted devices and will be accessible only to the researcher and supervisor.
- Participation is entirely voluntary, and you may withdraw from the study at any point without any penalty.

If you are willing to participate, please indicate your availability (date/time) and sign and return the attached consent form. Should you have any questions or concerns, please feel free to contact me at 2619868@students.wits.ac.za or my supervisor at kebashnee.moodley@wits.ac.za.

Thank you very much for your time and cooperation.

Yours sincerely,



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APPENDIX B: RESEARCH CONSENT FORM

Research title: Adoption of Generative AI in Loyalty Programmes to Enhance Customer Engagement in South Africa.

Name of researcher: Ramaesela Hazel Digama

I, _____, agree to participate in this research project.

I agree to the following (Please tick the relevant option below):

1. The research study was explained to me. I understand what the research is about.	YES	NO
2. I understand and agree that my participation in this research project is voluntary.	YES	NO
3. I understand and agree that I can withdraw from this study at any time without needing to provide a reason.	YES	NO
4. I understand and agree that the interview may be audio-recorded for transcription purposes.	YES	NO
5. I understand and agree that my name and identity will remain confidential and will not appear in any reports or publications.	YES	NO
6. I understand and agree that the researcher may use and include my direct quotations in their research report.	YES	NO

7. I understand and agree that the information I provide will be kept strictly confidential and used solely for academic research. YES NO

_____ _____

Participant's Signature Date

APPENDIX C: INTERVIEW GUIDE

1. **Role and Experience**
    - Please tell me a little bit about yourself regarding your role in the organisation, the number of years you have spent in the organisation, and the number of years you have been in the current role.
    - What level of involvement do you have in the organisation's loyalty programme?

2. **Knowledge and Involvement in AI**
    - What is your knowledge regarding artificial intelligence, generative AI in particular?
    - To your knowledge, has your organisation adopted generative AI? If so, in which use cases?
    - Are you involved in the development of artificial intelligence strategies in the organisation?

3. **Loyalty Programme Current Practices**
    - How does the organisation currently customise loyalty programme rewards, benefits, and incentives for individual customers?
    - To your knowledge, does your organisation have plans to adopt generative AI in loyalty programmes? If so, how familiar are you with its potential applications in loyalty programmes?

4. **Potential Benefits – Technology Adoption**
    - What benefits do you see from using generative AI in your loyalty programme, especially in personalising rewards and incentives for customers?

- How do you think generative AI will impact customer experience, engagement and loyalty?

5. Challenges and Obstacles – Technology Adoption

- What challenges do you foresee in the adoption and implementation of generative AI in your loyalty programme?
- How does the organisation plan to address potential data privacy and security concerns, as well as ethical considerations, when integrating generative AI into loyalty programmes?
- What steps is the organisation taking to mitigate any potential biases in the AI algorithms used in your loyalty programme?

6. Market Differences

- How do you think the South African market differs in terms of AI adoption in loyalty programmes compared to other regions?
- What specific challenges and opportunities do you see in the South African context regarding the use of generative AI in loyalty programmes?

7. Organisational Characteristics

- How would you describe your organisation's culture regarding the adoption of generative AI, encompassing perspectives from both employees and leadership?
- Does this organisation have the necessary skills to adopt and integrate generative AI into its operations? What is the strategy to overcome those challenges if any?

8. **Environmental Factors**
    - Are there any ethical/regulatory requirements that you know of in adopting generative AI in the organisation?
    - Is there a sense within the organisation that there is pressure to adopt these emerging technologies, and where does this pressure originate?

Before we conclude, is there anything else you would like to share about the potential future of generative AI in loyalty programs, or any final thoughts on how organisations should approach its integration moving forward?

APPENDIX D: QUALITATIVE CODING

Category	Code	Description
Current Organisation Knowledge and Practices		
Current Involvement and Knowledge - AI and Strategies	CurrPractices_AIStrategiesInvolvement-No	Involvement in AI strategies: No participation.
Current Involvement and Knowledge - AI and Strategies	CurrPractices_AIStrategiesInvolvement-Yes	Involvement in AI strategies: Active participation.
Current Involvement and Knowledge - AI and Strategies	CurrPractices_KnowledgeOfAI-Aware	Awareness of AI technology within the organisation

Current Involvement and Knowledge - AI and Strategies	CurrPractices_KnowledgeOfGenAI-Aware	Awareness of GenAI technology within the organisation.
Current Involvement and Knowledge - AI and Strategies	CurrPractices_KnowledgeOfGenAI-Limited-Basic	Basic or limited knowledge of GenAI within the organisation.
Current Involvement and Knowledge - AI and Strategies	CurrPractices_KnowledgeOfGenAI_NotAware	No awareness of GenAI within the organisation.
Current Involvement and Knowledge - AI and Strategies	GenAIinLP_PlansToAdopt-IntegrateExistingModelsintoLLMs	Plan to integrate existing models into LLMs in loyalty programmes.
Current Involvement and Knowledge - AI and Strategies	GenAIinLP_PlansToAdopt-NotYetNotSure	Unsure or undecided about adopting GenAI in loyalty programmes.
Current Involvement and Knowledge - AI and Strategies	GenAIinLP_PlansToAdopt-Yes	The decision to adopt GenAI in loyalty programmes.

Current Involvement and Knowledge - Loyalty programme	CurrPractices_LP_Customisation-MachineLearning-SegmentationCustomerBehaviourRecommendations	Use of machine learning for segmentation and behaviour-based recommendations in loyalty programmes.
Current Involvement and Knowledge - Loyalty programme	CurrPractices_LP_Customisation-No_Idea	No idea or unclear on how to customise loyalty programmes.
Current Involvement and Knowledge - Loyalty programme	CurrPractices_LP_Customisation-NotPersonlisedToIndividuals	Loyalty programmes are not personalised to individual customers.
Current Involvement and Knowledge - Loyalty programme	CurrPractices_LP_Involvement-Yes	Active involvement in loyalty programme management.
Current Involvement and Knowledge - Loyalty programme	CurrPractices_LP_Involvement-Yes-ReportingGovernance	Active involvement with a focus on reporting and governance in loyalty programmes.

Current Involvement and Knowledge - Loyalty programme	CurrPractices_LP_Involvement_Yes-ML-Tech-Capabilities	Active involvement in loyalty programmes with a focus on ML and technology capabilities.
Current Knowledge - GenAI Adoption within the Org	CurrPractices_GenAI_Adopted-No	No adoption of GenAI within the organisation.
Current Knowledge - GenAI Adoption within the Org	CurrPractices_GenAI_Adopted-Yes	GenAI has been adopted in the organisation.
Current Knowledge - GenAI Adoption within the Org	CurrPractices_GenAI_Adoption-UseCases	Use cases identified for GenAI adoption within the organisation.
Current Knowledge - GenAI Adoption within the Org	CurrPractices_GenAI_AdoptionStage-InceptionStage-POCs	GenAI adoption is in the inception or proof-of-concept stage.
Current Knowledge - GenAI Adoption within the Org	GenAIinLP_PotentialApplications-Communication	Potential application of GenAI in communication within loyalty programmes.
Current Knowledge - GenAI Adoption within the Org	GenAIinLP_PotentialApplications-CreateEfficiencies	Potential application of GenAI to create efficiencies in loyalty programmes.
Current Knowledge - GenAI Adoption within the Org	GenAIinLP_PotentialApplications-CustomerBehaviour	Potential application of GenAI to analyze customer behaviour in loyalty programmes.

Current Knowledge - GenAI Adoption within the Org	GenAIinLP_PotentialApplications-ModelsAndDeepLearning	Potential application of GenAI models and deep learning in loyalty programmes.
Current Knowledge - GenAI Adoption within the Org	GenAIinLP_PotentialApplications-Personalisation	Potential for GenAI to enable personalisation in loyalty programmes.
TOE - Environmental Context		
Environment - Market and Regional Differences	GenAIinLP_Challenges-TechInfrastructure	Challenges with technology infrastructure for GenAI in loyalty programmes.
Environment - Market and Regional Differences	MarketDifferences_SA-GenAI-DevelopingCountry-FollowersOnceProven	South Africa as a developing country, following GenAI adoption once proven.
Environment - Market and Regional Differences	MarketDifferences_SA-GenAI-SAAmongstLeadersInAfrica	South Africa is a leader in GenAI adoption in Africa.
Environment - Market and Regional Differences	MarketDifferences_SA-SeasonedWithAdoption	South Africa has experience in adopting emerging technologies.
Environment - Market and Regional Differences	MarketDifferences_SA-SlowAdoption	South Africa is slow to adopt GenAI compared to other countries.
Environment - Market and Regional Differences	MarketDifferences_SA_BehindTheRestOfTheWorld	South Africa lags behind other countries in GenAI adoption.

Environment - Market and Regional Differences	MarketDifferences_SA_Challenges_HighCosts	High costs as a barrier to GenAI adoption in South Africa.
Environment - Market and Regional Differences	MarketDifferences_SA_Challenges_LimitedKnowledgeAndSkillsDevelopment	Limited knowledge and skill development as a barrier to GenAI adoption in South Africa.
Environment - Market and Regional Differences	MarketDifferences_SA_Challenges_NotFullyEmbracingTech	South Africa is not fully embracing technology advancements like GenAI.
Environment - Market and Regional Differences	MarketDifferences_SA_Challenges_ProcessingInfrastructure	Challenges related to processing infrastructure for GenAI adoption in South Africa.
Environment - Market and Regional Differences	MarketDifferences_SA_Challenges_StateOfEconomy	Economic challenges affecting the adoption of GenAI in South Africa.
Environment - Market and Regional Differences	MarketDifferences_SA_SolidDigitalInfrastructure	South Africa has strong digital infrastructure supporting GenAI adoption.
Environment - Pressure to Adopt and Its Origin	Environment_PressureToAdopt-External-EvolvingCustomers	External pressure from evolving customer needs driving GenAI adoption.
Environment - Pressure to Adopt and Its Origin	Environment_PressureToAdopt-External-RemainCompetitive	External pressure to remain competitive drives GenAI adoption in loyalty programmes.
Environment - Pressure to Adopt and Its Origin	Environment_PressureToAdopt-Internal-CostReduction	Internal pressure for cost reduction motivating GenAI adoption.

Environment - Pressure to Adopt and Its Origin	Environment_PressureToAdopt-Internal-GroupCompany-SeniorManagement	Internal pressure from senior management for GenAI adoption.
Environment - Pressure to Adopt and Its Origin	Environment_PressureToAdopt-Internal-ImproveProcesses	Internal pressure for improving processes through GenAI adoption.
Environment - Pressure to Adopt and Its Origin	Environment_PressureToAdopt-NotReallyPressure	No significant pressure to adopt GenAI in the organisation.
Environment - Pressure to Adopt and Its Origin	Environment_PressureToAdopt-Yes	Active pressure for adopting GenAI in the organisation.
Environment - SA Ethical Regulatory Landscape	Environment_RegulatoryCompliance	Compliance with regulatory standards affecting GenAI adoption in South Africa.
Environment - SA Ethical Regulatory Landscape	Environment_RegulatoryRestrictions-DataLocalisation	Restrictions on data localization impacting GenAI adoption in South Africa.
Environment - SA Ethical Regulatory Landscape	MarketDifferences_SA-Challenges_LackingLegalFrameworks	Lack of a legal framework for GenAI adoption in South Africa.
TOE - Organisational Context		
Organisation - Addressing Biases Concerns Strategies	AddressingChallenges_Biases_ModelMonitoringTweakingTraining	Strategies for addressing biases through model monitoring and training.

Organisation - Addressing Biases Concerns Strategies	AddressingChallenges_Biases_NotSure	Uncertainty around strategies for addressing biases in GenAI models.
Organisation - Addressing Biases Concerns Strategies	AddressingChallenges_Biases_SampleSizeGroupsConsiderations	Considerations regarding sample size and group diversity in GenAI model training.
Organisation - Addressing Biases Concerns Strategies	AddressingChallenges_Biases_Strategies-ModelsTrainingUsageAwareness	Strategies to ensure awareness and training on using GenAI models responsibly.
Organisation - Addressing Biases Concerns Strategies	AddressingChallenges_EthicalIssues-AIForumsAndApprovalBoard	Ethical issues addressed through AI forums and approval boards.
Organisation - Addressing Biases Concerns Strategies	AddressingChallenges_EthicalIssues-GovernanceAroundDataUsage	Governance strategies to ensure ethical use of data in GenAI models.
Organisation - Addressing Biases Concerns Strategies	AddressingChallenges_EthicalIssues-GovernanceRegulatoryCompliance	Compliance with governance and regulatory standards for GenAI deployment.
Organisation - Addressing Biases Concerns Strategies	AddressingChallenges_EthicalIssues-NotSure	Uncertainty in how to address ethical issues in GenAI adoption.
Organisation - Addressing Biases Concerns Strategies	AddressingChallenges_SecurityPrivacy-OrgAIBlueprint	Organisational blueprint for addressing security and privacy concerns in GenAI adoption.
Organisation - Employees Skillset and Strategies	GenAIinLP_Challenges-TeamsAlignmentAndKnowledge	Challenges in aligning teams and knowledge for effective GenAI adoption.

Organisation - Employees Skillset and Strategies	OrgSkillsSet_HaveRightSkills-No	Lack of necessary skills for implementing GenAI in the organisation.
Organisation - Employees Skillset and Strategies	OrgSkillsSet_HaveRightSkills-Yes	The organisation has the necessary skills for implementing GenAI.
Organisation - Employees Skillset and Strategies	OrgSkillsSet_Strategies-PracticalUtilizations	Strategies for the practical utilization of GenAI in loyalty programmes.
Organisation - Employees Skillset and Strategies	OrgSkillsSet_Strategies-Training	Training strategies to upskill teams on GenAI implementation.
Organisation - Employees Skillset and Strategies	OrgSkillsSet_Strategies-UpskillingTeams	Upskilling strategies to enhance team capabilities for GenAI adoption.
Organisation - Impact of Integrating GenAI into LP	ClosingComments_Innovation-CompetitiveAdvantage	GenAI integration offers a competitive advantage through innovation.
Organisation - Impact of Integrating GenAI into LP	GenAIinLP_Impact-EnhancedCX	Enhanced customer experience (CX) from integrating GenAI into loyalty programmes.
Organisation - Impact of Integrating GenAI into LP	GenAIinLP_Impact-ImprovedCustomerEngagement	GenAI improves customer engagement in loyalty programmes.
Organisation - Impact of Integrating GenAI into LP	GenAIinLP_Impact-LongTermLoyalty	Long-term loyalty benefits from integrating GenAI into loyalty programmes.

Organisation - Impact of Integrating GenAI into LP	GenAIinLP_Impact_ImprovedCustomerService	Improved customer service through GenAI in loyalty programmes.
Organisation - Leadership Support and Adoption Culture	MarketDifferences_SA-EarlyAdopters-Experiment	South Africa's early adopters experimenting with GenAI in loyalty programmes.
Organisation - Leadership Support and Adoption Culture	MarketDifferences_SA-GenAI-QuickWins-FromExistingModels	Quick wins from using existing models in GenAI adoption in South Africa.
Organisation - Leadership Support and Adoption Culture	OrgCulture_Adoption_ChangeAcceptance	Organisational culture acceptance for adopting change, such as GenAI.
Organisation - Leadership Support and Adoption Culture	OrgCulture_Adoption_EmployeePerception	Employee perception towards GenAI adoption within the organisation.
Organisation - Leadership Support and Adoption Culture	OrgCulture_Adoption_EmployeesNeed-UnderstandingAndValue	Employees need a better understanding and recognition of GenAI's value.

Organisation - Leadership Support and Adoption Culture	OrgCulture_Adoption_ExcitementAppetiteForInnovation	Organisational excitement and appetite for innovation, including GenAI adoption.
Organisation - Leadership Support and Adoption Culture	OrgCulture_Adoption_LeadershipSupport-Yes	Strong leadership support for GenAI adoption in the organisation.
Organisation - Leadership Support and Adoption Culture	OrgCulture_Adoption_NotFullyEmbraced	GenAI adoption is not fully embraced within the organisational culture.
TOE - Environmental Context		
Technology - Additional Insights from Closing Comments	ClosingComments_Digitization-Languages	Digital transformation and language considerations in adopting GenAI.
Technology - Additional Insights from Closing Comments	ClosingComments_DigitizationStrategy-LocalLanguageDataAvailability	The importance of local language data availability in digitization and GenAI adoption.

Technology - Additional Insights from Closing Comments	ClosingComments_POCs-EmbraceTech	Embracing technology through proof-of-concept (POC) projects for GenAI adoption.
Technology - Additional Insights from Closing Comments	ClosingComments_StartSmall_Scale	Start small and scale up when adopting GenAI in loyalty programmes.
Technology - Addressing Privacy, Security and Ethical Concerns Strategies	AddressingChallenges_Guardrails-RestrictAccess	Implementing guardrails to restrict access to sensitive data in GenAI models.
Technology - Addressing Privacy, Security and Ethical Concerns Strategies	AddressingChallenges_LeverageExistingAIStandards	Leveraging existing AI standards to ensure ethical use of GenAI technologies.
Technology - Addressing Privacy, Security and Ethical Concerns Strategies	AddressingChallenges_LLMDeploymentStrategies	Strategies for deploying Large Language Models (LLMs) ethically and securely.
Technology - Addressing Privacy, Security and Ethical Concerns Strategies	AddressingChallenges_Security-Monitoring	Ongoing monitoring of security risks related to GenAI deployment.

Technology - Addressing Privacy, Security and Ethical Concerns Strategies	AddressingChallenges_SecurityPrivacy-Adhere2Regulations	Ensuring security and privacy compliance in GenAI deployment.
Technology - Addressing Privacy, Security and Ethical Concerns Strategies	AddressingChallenges_SecurityPrivacy-OrgAIBlueprint	Blueprint for securing GenAI in the organisation, ensuring privacy.
Technology - Potential of GenAI in LP - Perceived Benefits	GenAIinLP_Benefits-CreateEfficiencies	GenAI adoption can create efficiencies in loyalty programmes.
Technology - Potential of GenAI in LP - Perceived Benefits	GenAIinLP_Benefits-CustomerSatisfaction	GenAI adoption can enhance customer satisfaction in loyalty programmes.
Technology - Potential of GenAI in LP - Perceived Benefits	GenAIinLP_Benefits-Ecosystem-Partnerships-Innovation	GenAI fosters innovation and partnerships within the loyalty programme ecosystem.
Technology - Potential of GenAI in LP - Perceived Benefits	GenAIinLP_Benefits-EffectiveCommunication	GenAI improves communication with customers through loyalty programmes.

Technology - Potential of GenAI in LP - Perceived Benefits	GenAIinLP_Benefits-Engagement	GenAI enhances customer engagement in loyalty programmes.
Technology - Potential of GenAI in LP - Perceived Benefits	GenAIinLP_Benefits-HighestPersonlisation	GenAI provides the highest level of personalization in loyalty programmes.
Technology - Potential of GenAI in LP - Perceived Benefits	GenAIinLP_Benefits-ImprovedNPS	Improved Net Promoter Score (NPS) from adopting GenAI in loyalty programmes.
Technology - Potential of GenAI in LP - Perceived Benefits	GenAIinLP_Benefits-Recommendation	GenAI offers better recommendation systems within loyalty programmes.
Technology - Potential of GenAI in LP - Perceived Challenges	GenAIinLP_Challenges-AI_DeploymentStrategies	Challenges in deploying AI models effectively within loyalty programmes.
Technology - Potential of GenAI in LP - Perceived Challenges	GenAIinLP_Challenges-CostsandBudgetsConstraints	Budget constraints affecting GenAI adoption in loyalty programmes.

Technology - Potential of GenAI in LP - Perceived Challenges	GenAIinLP_Challenges-Data-Quality	Issues related to data quality for effective GenAI implementation in loyalty programmes.
Technology - Potential of GenAI in LP - Perceived Challenges	GenAIinLP_Challenges-Data_Privacy_Security	Data privacy and security concerns related to GenAI in loyalty programmes.
Technology - Potential of GenAI in LP - Perceived Challenges	GenAIinLP_Challenges-Legal_Regulation	Legal and regulatory challenges in deploying GenAI in loyalty programmes.
Technology - Potential of GenAI in LP - Perceived Challenges	GenAIinLP_Challenges-ValueRealisationDifferentiatingFactor	Challenges in realizing the value and differentiation of GenAI in loyalty programmes.
Technology - Potential of GenAI in LP - Perceived Challenges	MarketDifferences_SA_OrgSpecific_Challenges_CompetingPriorities	South African organisations face competing priorities affecting GenAI adoption.

APPENDIX E: ETHICAL CLEARANCE CERTIFICATE



Graduate School of Business Administration
University of the Witwatersrand, Johannesburg

Wits Business School Ethics Committee
Constituted under the University Human Research Ethics Committee (Non-Medical)

Ethics Clearance Certificate

Ethics protocol number: WBS/DB2619868/366
This certificate is only valid with a legitimate ethics protocol number and signed by the Researcher (below).

This certificate is only valid if accompanied by formal permission from the relevant stakeholder(s).

Project title	Adoption of generative AI in loyalty programmes to enhance customer engagement in South Africa
Investigator / Researcher	Ms Ramaesela Digama
Nature of Project	MM (Digital Business)
Decision of the Committee	Approved, provided stakeholders and participants are guaranteed confidentialty.
Issue Date of Certificate	05/09/2024
Expiry date	Date of submission of the project / research report
Chairperson	Dr Ayanda Magida ☎ +27 11 717 3953 ✉ ayanda.magida@wits.ac.za

Declaration by Researcher

One copy must be signed by the Researcher and returned to the Chairperson of the Wits Business School Eth Committee.

I fully understand the conditions under which I am authorized to carry out the abovementioned research an guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I undertake to resubmit the protocol to the Committee.

Signature

06 September 2024
Date:

APPENDIX F: TURNITIN REPORT

RH Digama_2619868_MMDB_Final Masters Research Report_2025.docx

ORIGINALITY REPORT

2%	1%	3%	%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	wiredspace.wits.ac.za Internet Source	1%
2	"Generative Artificial Intelligence (AI) Approaches for Industrial Applications", Springer Science and Business Media LLC, 2025 Publication	<1%
3	Mthethwa, Pumza. "The Use of Digital Marketing for Sales Growth in Women-Owned Small, Medium and Micro-Enterprises in South Africa", University of the Witwatersrand, Johannesburg (South Africa), 2025 Publication	<1%
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5	Morteza Ghobakhloo, Masood Fathi, Mohammad Iranmanesh, Mantas Vilkas, Andrius Grybauskas, Azlan Amran.	<1%

	"Generative artificial intelligence inmanufacturing: opportunities for actualizing Industry 5.0 sustainability goals", Journal of Manufacturing Technology Management, 2024 Publication	
6	Koshanam, Venkat Ramanathan. "Facilitating Ethical Adoption of Artificial Intelligence Technologies in the Public Sector", University of Maryland University College, 2024 Publication	<1%
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