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An Assessment of Digital Transformation and Maturity in the South African banking sector

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An Assessment of Digital Transformation and Maturity in the South African banking sector

A

A Dissertation submitted in partial fulfillment of the requirements for the Degree of Master of Business Administration.

To

The Faculty of Commerce, Law, and Management

At

The University of the Witwatersrand, Business School

By

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Submission Date: 31 May 2024

DECLARATION

I, **Achumile Sinazo Garane,** hereby declare that the study entitled '**An Assessment of Digital Transformation and Maturity in the South African Banking Sector'** is my original work. Furthermore, I declare that this work has not been submitted to any university or academic institution for examination.

Signature……...

DEDICATION

In loving memory of my father, Mr. Sikhumbuzo Garane. My father, your wisdom and encouragement were instrumental in shaping my character. I have worked diligently to live up to the standards you set for me and this success is a tribute to the values you instilled in me. Even though you are no longer here in person, your influence is felt in every part of my life's journey.

ACKNOWLEDGEMENTS

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- I am thankful to my friends and family for their constant encouragement and support. Your confidence in my abilities has strengthened my confidence, and I greatly appreciate the positive attitude you have shown towards my studies;
- I would also like to thank my employers for their financial and emotional support. Without your commitment, this project would not have been possible; and
- Finally, I would like to thank the University of the Witwatersrand, Business School, for the opportunity to conduct this study.

ABSTRACT

The present study investigates the nuances of digital transformation and maturity in the South African banking sector. In the present study, the prevailing problem is that documented scientific evidence seemingly suggests business customers have to wait a long time for their loan applications to be accepted because banks lack the necessary digital capabilities, business processes and IT competencies to respond to all sales requests promptly. To deal with this pressing empirical and practical gap in the literature, this study collected primary data through a semi-structured interview approach. To do this, two samples were drawn from business executives and retail and business client strata from the banking sector in South Africa. A total of 15 interviews were conducted, comprising 7 business executives and 8 from the retail and business clients group. Data was analysed using thematic analysis. The findings suggest that South Africa's banking industry has a well-advanced digital banking system that integrates business and retail clients with the global financial system and makes it easier for them to plan their cash flow streams using different products offered by digital banking platforms. Nonetheless, despite a relatively advanced banking system, evidence suggests that retail and business banking clients lack the knowledge on how to use digital banking applications. As such, the study recommends that financial institutions should develop user-friendly products, increase knowledge of product usage to clients, and eliminate the probability of cybercrime in digital banking platforms.

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CHAPTER 1: INTRODUCTION

1.1 Background

The present study assesses digital transformation and the question of maturity in the banking sector of the Republic of South Africa. The problem the present study confronts is that bank clients in South Africa must wait a long time for their loan applications to be processed because banks have limited digital capabilities and information technology competencies to process loan applications efficiently and timeously. This problem entails that banks have to change their technological actualities to meet the changing consumer expectations and needs. As such, due to the quick change in consumer behaviour, a significant number of companies have had to modify their business practices (Tao et al., 2022). Customers now have more options, allowing them to choose the solution that best meets their needs (Syaglova, Salmovska, 2019; Rajkhowa & Das, 2020). Many businesses try to stay informed of emerging trends and alterations in client behaviour to enhance their ability to meet customer demands (Syaglova, Salmovska, 2019; Rajkhowa & Das, 2020). This research is an assessment of the digital maturity between retail and business banking clients in the South African context. Its central aim is to explore ways in which banks in South Africa can harness the full benefits of digital transformation. The importance of this research highlights that banking is at the heart of successful entrepreneurship and business through providing finance, it is the lifeblood of business and the broader economy (Al-Omoush et al., 2019; Ghosh, 2022).

Importantly, many businesses are now looking at digital transformation as a new revenue stream, it will be crucial for banks to keep up with the trends if it they still want to compete in the financial industry (Babarinde et al., 2020; Suharbi&Margono, 2022a). This study has a scope of making sense of the gap in digital solutions for business customers. There are many factors accounting for the differences in the digital transformation between retail and business banking. This also speaks to how these factors or differences affect the banks. The digital transformations have increased the gap between those who can access finance at financial institutions and those who cannot (Saka, Eichengreen& Aksoy, 2022; Shinkarev, 2019). This gap is exacerbated by a lack of digital capabilities and skills, and modern business models,

especially among small business owners who then fail to access the financial services they need to grow and succeed.

The use of technology and perpetual innovation has a significant impact on the evolution of consumer behaviour. Customers now have access to smart devices and the internet, putting pressure on many companies to adopt the latest technology to give excellent customer service (Blichfeldt & Faullant, 2021; Raghavan & Pai, 2021). The digital transformation of business operations has considerably impacted individual customer satisfaction (Jeza & Mpele Lekhanya, 2022). Additionally, the COVID-19 pandemic has contributed to a shift in consumer behaviour in which individuals are now more likely to demand and utilise digital solutions (Laato, Islam, Farooq, Dhir,2020; Vaska et al., 2021a; Romero et al., 2019). The pandemic has also hastened digital transformation worldwide, including in South Africa (Raimo et al., 2022). Customers have been forced to quickly adopt digital technology for shopping, entertainment, and communication because of lockdowns, quarantines, and other social isolation measures (Laato, Islam, Farooq, Dhir,2020; Shah et al., 2020). Many South Africans have turned to e-commerce platforms to acquire products and services due to the closure or reduction in the capacity of traditional establishments. Internet-only businesses like Uber Eats, Mr. D, and Takealot experienced increased online sales. Customers pressure banks to become increasingly digital because they desire user-friendly financial services and convenience (Paelo, 2019).

Tuesta (2017) posits that banks have been pressured to adopt digital transformation worldwide over the past couple of years. South African banks have actively adopted digital transformation to better business operations, increase customer experience, and maintain a competitive advantage, however, the response has been slow (Cao et al., 2022; Pristiyono et al., 2022a). Banks use mobile banking apps, digital onboarding, artificial intelligence (AI), and blockchain technologies to improve their processes and make their services more accessible to customers (Ahmad et al., 2021). This transition to digitalisation has increased productivity, enhanced security, and tailored the consumer experience (Lee & Chen, 2022). It is no secret banks have been focusing on the implementation of digital transformation for retail customers leaving the small and medium business customers feeling left behind. This puts pressure on the banks as they are competing with Financial Technology (FinTech) companies that provide similar solutions with the most recent innovations (Shinkareva, 2019).

Business banking clients have access to some digital solutions, however, the experience is not the same as that of retail customers and the solutions available to business clients are limited

(Kaur et al., 2021; Ramdani et al., 2020). These clients no longer want to wait months to get services such as getting a loan or a transactional account. They want to be able to access some of these services in a short time, but the bank is not able to respond effectively to these types of requests because it is still processing digital requests with old business processes (Aziz & Naima, 2021a). The bank's product rules have not been adapted to online solutions. The bank uses the same product rules that were appropriate for branch service because the digital and product departments work in silos, so there is a lack of transformation. Nevertheless, we must note that banks have not adopted digital solutions for business customers as quickly as for private customers (Feyen, 2021). Previously business customers were not interested in digital solutions because they relied on relationship managers for customer service (Sironi, 2018). Relationship managers have also not recommended or suggested digital solutions to their clients because they see digital solutions as a component that will replace them.

The role of the relationship manager was and still is that of an intermediary between business clients and the bank (Sharma & Joshi, 2022). With the limited digital options available, there is no link between the functioning of digital platforms and the involvement of relationship managers, the bank is still using old business models (Kemp, Palmer & Strelan, 2019; Lu et al., 2022). Digital solutions have been developed without the involvement of bankers and department silos seem to be the blocker (Hie, 2019; Laato, Islam, Farooq &Dhir, 2020). As a result, the bank has a high number of digital leads with a low conversion rate because all leads go to relationship managers who refuse to handle these types of enquiries as they are not part of the Key Performance Indicators (KPI). The objective of this study is to analyse the reasons for the lack of digital solutions for business customers in the bank and to investigate how business processes and product rules can be redesigned to accommodate digital solutions.

1.2 Context of the Study

According to The World Bank Report (2022), the banking and insurance industries have been under significant pressure to implement digital transformation. As the world becomes more digital, the financial industry faces a competitive environment characterised by the introduction of new solutions, such as cryptocurrencies, artificial intelligence (AI), cloud services, etc. Digital technology has facilitated the development of new business models that employ contemporary technologies to meet customer demands (Kotarba, 2018). The digital transformation of this industry has become the norm, however, these new business models

seem to be explored by small financial technology (FinTech) companies (Kotarba, 2018; Li, 2020; Ramdani et al., 2020). In the process, digital innovation has spawned new competition, with FinTech firms developing solutions for which larger, more established organisations require assistance (Berman et al., 2022). Financial institutions have invested significant time and resources in the creation of digital solutions to maintain their competitiveness and relevance (Rime et al., 1999; Vives, 2019). Authorities require assistance in developing new reforms that are consistent with the new standard as financial institutions undergo this rapid transition (Alexandros, 2022).

The COVID-19 pandemic and digitisation have accelerated the need for innovative digital customer service solutions. To provide seamless customer service, financial institutions must develop digital capabilities while balancing innovation, regulatory compliance, risk management, and business processes. Additionally, they must ensure that their system is secure and can protect sensitive customer data (Shinkareva, 2019). Perhaps, it would be ideal to discuss the structure of the banking sector in South Africa. Lastly, this industry is highly competitive, with both large and small companies competing for market share. Small businesses have access to innovative solutions, whereas large corporations relying on legacy systems struggle to innovate (Bellens, 2020). FinTech companies and other new entrants were motivated by technology to increase competition in the financial sector and to challenge the business models of established financial institutions (Thakor, 2019; Vives, 2019). However, there is concern that these developments continue to prioritise retail customers over business and commercial clients (Bellens, 2020).

1.3 Research Problem

Currently, business customers have to wait a long time for their loan applications to be processed because banks lack the necessary digital capabilities, business processes and IT competencies to respond to all sales requests promptly (Mignamissi & Jijo, 2021). Customers today are more intolerant of long waiting times for services (Gallino et al., 2022; Xu et al., 2021). As the bank develops digital solutions and relationship managers become part of the business model for servicing business customers, the two worlds need to merge (Saka, Eichengreen& Aksoy, 2022). Relationship managers need to learn more about technology and see digital capabilities as a support rather than a threat. Relationship managers do not have IT and digital skills, and they have to do a lot of administrative work and less advisory work, this

is affecting the service turnaround time (Shinkarev, 2019). For instance, in this relationship, relationship managers are also dissatisfied with customer service. This is caused by many handoffs which leads to long processing times, and teams need better ways to collaborate and share information (Saka, Eichengreen& Aksoy, 2022).

The transition to digital banking has brought some obstacles for financial organisations and customers, banks have been in a digital transformation for many years (Pristiyono et al., 2022b;Shinkareva, 2019). There are more digital options for retail customers than business customers (Gautam & Sharma, 2019; Pristiyono et al., 2022b). This upsets business customers because it delays their access to banking services. The lack of digital solutions and convergence with relationship managers has created a big gap between retail and business customers (Saka, Eichengreen& Aksoy, 2022). As for the current digital solutions, the bank does not have proper processes to support the relationship managers and the digital platforms, they still rely on old business processes that were initially designed for branch and call centre services. The digital team and the relationship banking team work in silos, the banks are still stuck with legacy systems hence there is a lack of transformation (Ngoc Nguyen, 2019a, 2019b).

In this relationship, bankers do not have the necessary KPIs that enable them to respond to digital leads, because of this they see digital platforms as competition. Thus they do not prioritise digital leads or promote the bank's digital offerings (Shin, 2020). The long waiting times result in the bank losing customers to its competitors, as mentioned previously. There is a lack of a clear definition of the Digital Journey, the bank has a high number of digital leads but a poor conversion rate (Mignamissi & Jijo, 2021). If this trend continues, the bank's reputation could suffer, and it could lose loyal and potential customers. This means that the bank will lose its market share and reputation, and will not reach its revenue targets. Therefore, this study seeks to provide a digital maturity assessment of the South African banking sector.

1.4 Aim of the study

The aim of this study, therefore, is to identify gaps in digital solutions within the South African banking sector with a specific focus on its potential to improve the experience of business banking clients.

1.5 Research Questions

1.5.1 Primary research question

How can banks in South Africa harness the full benefits of digital transformation so that they can be competitive in the new evolving banking sector in South Africa?

1.5.2 Secondary research questions

The secondary research questions include:

- What is the state of digital transformation and maturity in South Africa?
- What is digital readiness that enables customer services in retail and business customers?
- What factors influence and account for the differences in the digital transformation and maturity between retail and business banking customers?
- How can digital transformation and maturity improve business banking and retail customer value?

1.6 Research Objectives

The research objectives of the present study are:

- To investigate the state of digital transformation and maturity in South Africa and establish how the bank has taken to digital innovations in the sector.
- To explore the digital readiness that enables customer services in retail and business segments.
- To explore the factors that influence and account for the differences in the digital transformation and maturity between retail and business customers.
- To determine how digital transformation and maturity can improve business and retail banking customer value.

1.7 Significance of the study

The reasons why this research is significant are twofold: On the one hand, banks are central to businesses, and on the other hand, those businesses are central to the economy and public life.

The centrality of banks, to the economy, means that they must be assisted through research to find ways to adapt to the new environment that is shaped by digital technologies. This way, they will ensure the longevity of their banking businesses by ensuring that they adapt their business models to the new environment. Businesses, including small and medium businesses, are an essential part of the South African economy and public life but face particular difficulties in accessing financial services. Many small businesses need financial resources. The lack of digital capabilities and modern business models can exacerbate these barriers, making it difficult for small business owners to access the financial services they need to grow and succeed. Banks originally used the branch as a source of revenue, however, many businesses are now looking at digital transformation as a new revenue stream (Ngoc Nguyen, 2019a; Suharbi & Margono, 2022b). It will be crucial for a bank to keep up with the trends if it still wants to compete in the financial industry. Extending digital capabilities to business customers means creating a new revenue stream. This is inconvenient for business customers and a missed opportunity for banks to attract and retain this important customer group. It also puts banks at a disadvantage compared to their competitors who can use more advanced technologies. If banks ignore the demand for customer service, they stand a chance of being displaced by smaller companies like FinTechs.

It is essential to examine financial institutions' use of digital banking because this area of banking is expanding quickly and is predicted to take over the market shortly (Viviano & Michelangeli, 2021). The global digital banking industry was estimated to be worth $803.8 billion in 2019 and is anticipated to grow to $1610 billion by 2027, according to the Digital Banking Industry Report of 2021. Retail banks retain the greatest market share among the major digital banking industry categories, valued at $574.4 billion in 2019 and projected to reach $1320 billion by 2027 (Grey, 2019; Kharabara et al., n.d.-a). The largest service segment, valued at $194.5 billion in 2019 and expected to reach $402.5 billion by 2027, is digital payments. Furthermore, the fact that Sub-Saharan Africa only makes up 3% of all users of digital banking underscores how urgent it is for financial institutions to make digital technology adoption a high priority in their operations in global markets, where regions such as Europe are already at 19% and North America at 12% (Billari et al., 2020).

The current literature exhibits a notable gap in understanding, as articulated and substantiated in the problem statement and throughout the literature review in chapter 2 . It is evidenced that contemporary customers exhibit increasing intolerance and heightened expectations from

service providers offering digital solutions. Moreover, there remains a limited understanding regarding the creation of equivalent value for retail and business customers. This study aims to fill these gaps by demonstrating how such value can potentially be created. Furthermore, the research employs a qualitative approach, focusing on digital transformation and Maturity to explore how value can be generated for both customer segments.

Historically, scholarly literature has predominantly concentrated on the retail sector, with comparatively less attention paid to the business perspective. This study makes a significant contribution to the field by addressing this disparity and advancing our understanding of how digital transformation can create value for business customers.

1.8 Delimitations of the Study

The study will focus on the barriers that prevent businesses customers from accessing integrated digital solutions. This is mostly the qualitative aspects of this research seeking to go in-depth in terms of the reasons behind the state of the uptake of digitalisation by banks. The study did address the technical aspects of specific digital solutions. This is because the technical aspects, although they can be engaged qualitatively, represent another kind of research. Including it did not make the study bigger and unmanageable. Furthermore, the study analysed and proposed how business processes need to transform to accommodate digital customer journeys in the context of the banking industry in South Africa.

To be clear:

1. The study reported on digital transformation and digital maturity assessment comparing retail and business banking.
2. Only one corporate bank was used to research because there is not enough time to investigate all South African banking institutions.

Data collection methods*:* The study used qualitative data collection methods such as interviews to elicit the opinions and experiences of retail customers, business customers and stakeholders such as business executives, senior managers, relationship managers, and digital platforms for operators and clients in the banking industry of South Africa.

An analysis of digitised processes and convergence of relationship managers narrows the scope

of the study in a way that allows the study to be controlled and limited, while still providing important insights into the gap in the provision of digital solutions to business customers. The findings of the study provide a comprehensive understanding of the issues and opportunities associated with bridging this gap and assist in developing effective strategies and solutions to promote corporate growth and competitiveness in the digital economy.

1.9 Operational Definitions

- **Relationship banking**: Relationship banking establishes personalised, long-term relationships between a bank and its clients. This strategy emphasises the significance of recognising each customer's specific needs and tailoring financial products and services accordingly (Standard Bank Website, 2019).
- **Digital solutions**: Refers to technology-based solutions that enable businesses to carry out their operations electronically, such as digital banking, online payment systems, and other digital tools that help improve efficiency and streamline processes (Omarini, 2017).
- **Business commercial clients**: Refers to organisations engaged in commercial activities, such as purchasing and selling goods and services. These can include SMEs and larger corporations (Standard Bank Website, 2019).
- **Digital banking**: According to Omarini (2017), the term "financial technology" (or fintech for short) pertains to the utilisation of electronic means such as online banking, mobile banking, and other electronic banking services to offer financial services to clients.
- **Consumer behaviour:** Consumer behaviour refers to the actions and decisions individuals or households make when selecting, purchasing, utilising, and discarding products. It includes personal preferences, cultural influences, social norms, and economic considerations. Understanding consumer behaviour is essential for developing effective marketing strategies and satisfying customer needs and desires. Consumer behaviour research can also shed light on broader social and economic trends (Alexandros, 2022).
- **Brick-and-mortar banks**: These are traditional financial institutions that operate through a physical branch network. These financial institutions provide a variety of monetary solutions, such as checking and savings options, loan facilities, and

investment opportunities. Brick-and-mortar banks have a long history and are well-established in their respective markets. They often prioritise personalised service and strong relationships with their customers. Examples of brick-and-mortar banks include Standard Bank, FNB, Capitec, and many more (Torkelson, 2020).

- **Business banking**: Business banking is the delivery of financial services to businesses and corporations that need a wider range of goods and services than what is offered by retail banking. These services include treasury management services, company loans, lines of credit, financing for equipment, cash management options, and cash management solutions that are specifically designed to fulfill the needs of businesses. Business banks also provide additional services including foreign exchange, merchant services, and trade financing in addition to these. Business banking is designed to help companies manage their money, maximise cash flow, and meet their financial goals. This specialist form of banking is typically offered by banks or other financial organisations that have experience managing risks, giving financial advice, and determining the creditworthiness of business and corporate clients (Palo, 2019; Saka, Eichengreen, and Aksoy, 2022; Mignamissi and Djijo, 2021).
- **Digital transformation**: According to Kemp, Palmer, and Strelan (2019), the adoption of digital technology to transform company processes and enhance the customer experience is known as "digital transformation." This strategy involves maximising the speed, adaptability, and inventiveness of business processes by using tools like artificial intelligence, cloud computing, big data analytics, and the Internet of Things (IoT). Digital transformation can enable businesses to automate manual processes, streamline workflows, and improve decision-making. It can also enable businesses to develop new products and services, create new business models, and enter new markets (Saka, Eichengreen& Aksoy, 2022). Digital transformation is often driven by changing customer preferences and expectations, as well as advancements in technology. Successful digital transformation requires a clear strategy, leadership commitment, and investments in technology, talent, and organisational culture (Shinkareva, 2019).
- **FinTech banks**: These are financial institutions that leverage technology to deliver innovative financial services to their customers. These banks are often digital-only and operate exclusively through online channels, without a physical branch network. FinTech banks focus on providing customers with seamless and efficient banking experiences, often using advanced analytics and machine learning algorithms to

personalise their offerings. Examples of FinTech banks include Chime, Revolut, and Monzo (Sironi, 2018).

- **Maturity assessment**: This is a process of evaluating an organisation's capabilities and practices against a defined set of criteria or standards to determine its level of maturity in a specific area. The assessment typically involves a series of surveys, interviews, and/or observations to gather data on current practices and capabilities, which are then compared against a maturity model or framework. The purpose of a maturity assessment is to identify areas for improvement and to develop a roadmap for enhancing organisational performance. The output of a maturity assessment is typically a report that outlines the organisation's current maturity level, areas for improvement, and recommendations for enhancing its capabilities and practices to achieve higher levels of maturity.
- **Retail banking**: This refers to providing financial services to individual customers rather than businesses or corporations. This type of banking typically includes basic services such as transactional accounts, loans, insurance, and investment products (Torkelson, 2020). Retail banks aim to meet the financial needs of individual customers, such as helping them save and invest money, borrow money for personal expenses, and manage their day-to-day finances (Tuesta, 2017). Retail banks may offer a range of physical and digital channels for customers to access their services, including physical branches, online banking portals, and mobile apps. The retail banking sector is highly competitive, with banks striving to differentiate themselves by offering personalised service, competitive interest rates, and innovative products and services (Paelo, 2019).

1.10 Structure of the Dissertation

This dissertation is organised as follows:

Chapter One - The dissertation's opening chapter, which draws heavily from the proposal and tries to give the reader background knowledge on the subject under investigation. Together with the background information, it will explicitly draw attention to the gap in the availability of digital solutions for business clients. The chapter will also describe the significance of the study, the research questions, and the aims. The introduction also contains a preview of several of the dissertation's remaining chapters.

Chapter Two: This chapter examines how clients in the business sector embrace and integrate digital technologies, with an emphasis on the difficulties and roadblocks faced by small and medium-sized businesses (SMEs). We evaluate existing studies and theories to do this. Organisational ambidexterity and business process management are all covered in the theoretical examination. In the empirical review section, we examine how digital transformation is affecting businesses and banking, how it is progressing in South Africa, and how South African business banking may fully profit from it. The Digital Maturity Assessment Model is a component of the theoretical framework.

Chapter Three: This section explains the chosen research design as a qualitative research approach, allowing for a thorough analysis and description of the Bank of South Africa's adoption of digitalisation. To support this strategy, interviews and document analysis will be carried out. Participants and materials will be chosen using theoretical sampling to maximise the likelihood that valuable data will be produced. The chapter will also go into the procedures used for data analysis, data gathering, and sampling in this study. The choice to use this methodology is supported by the works of Denzin & Lincoln and Marvasti (2004) (2000).

Chapter Four: Based on the opinions and experiences of commercial business clients and other relevant parties, the findings of the inquiry into the delivery gap for digital solutions are highlighted in this section. The results are also interpreted, connected to existing literature, and provide a thorough understanding of the challenges and opportunities involved in closing the gap and offering better digital solutions to corporate clients.

Chapter Five: The major findings and the study's importance will be summarised in the research's concluding section. Also, it will make recommendations for potential future study fields and efficient strategies to support the development and competitiveness of businesses in the digital economy.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter fleshes out the literature review of the present study. As noted in the previous chapter, this study is an assessment of the digital transformation and digital maturity between retail and business banking clients in the South African context. The primary research question that it seeks to answer borders on how business banking in South Africa can harness the full benefits of digital transformation. As secondary questions, the focus would be on the state of digital transformation and maturity in South African banking institutions, the factors influencing the differences in the digital transformation between retail and business banking, and how digital transformation and maturity can improve business banking customer value.

This is important because banking is at the heart of successful entrepreneurship and business through providing finance which is the lifeblood of business. According to Shinkarev (2019), digital transformations have increased the gap between those who can access finance at financial institutions and those who cannot (Saka, Eichengreen& Aksoy, 2022(Aziz & Naima, 2021b). The lack of digital capabilities and modern business models exacerbate this gap making it difficult, especially for small business owners, to access the financial services they need to grow and succeed. Banks originally used the branch as a source of revenue (Kemp, Palmer &Strelan, 2019(Andrew Beattie, 2023). However, many businesses are now looking at digital transformation as a new revenue stream. It will be crucial for the bank to keep up with the trends if it still wants to compete in the financial industry (Feyen, 2021).

This study has a scope of making sense of the gap in digital solutions for business and commercial customers. This chapter will then focus on discussing the theoretical concepts that guide this study. It will then discuss the empirical literature in line with the three sub-questions with the first section looking at the state of digital transformation in South African banking institutions. The second section looking at how banks are harnessing the fruits of digital transformation in their business conduct, and the last looking at digital readiness and maturity, digital transformation, and customer value. In this literature review, the aim would be to show the gap that this study fills in research around banks and digital transformation.

2.2 Theoretical Framework

This section discusses the literature that is related to the theoretical underpinnings of this study on how banks in South Africa can harness the full benefits of digital transformation. The present study uses the Digital Maturity Assessment Model and the Business Process Management Model as theoretical frameworks to illuminate the factors that drive the provision of digital solutions for business banking clients.

2.2.1 Appropriateness of Theoretical Model

In particular, this study uses the Digital Maturity Assessment Model to illuminate that the maturity phase is made up of numerous criteria and dimensions that inform on the phases of digital maturity that indicate the maturity trail in terms of addressing several goals (Wernicke, Stehn, Sezer& Thunberg, 2021; Berghaus & Back, 2016; Mettler, 2011). It has been noted that a majority of maturity models have their roots in quality management and continuous improvement movements (Wernicke, Stehn, Sezer& Thunberg, 2021). This is appropriate for understanding and assessing the maturity process and related firm-level changes and customer satisfaction benefits.

Furthermore, the Business Process Management Model is appropriate for the study as it helps to analyse how the different aspects of businesses are changed and affected by digitalisation (Baiyere et al., 2020; Fischer et al., 2020; Zelt et al., 2019). In some instances, procedures that have been in the business for more than ten years are dissolved in preference for a simpler, faster method. The theory can also be used to analyse how digitalisation has improved businesses as well as the methods that can be adopted to maximise the benefits of digitalisation (Schallnno,2021). This theory is only limited to the changes that are made in the business and not how their traditional methods are affected.

2.2.2 Digital Maturity Assessment Model

In terms of the Digital Maturity Assessment Model, the most popular maturity software is the Capability Maturity Model which was developed by Paulk et al. in 1993 (Wernicke, Stehn, Sezer& Thunberg, 2021). Here, the argument is that the quality of services or a product is aligned with the quality of the production mechanism used to produce that product or service (Willis and Rankin, 2012). Therefore, it is further argued that a better production mechanism

is most likely to produce improved products or services and therefore communicate a message that maturity improves internal systems (Mullaly 2014).

Wernicke et al. (2021) claim that employing a maturity-based measure is a normative method, while ISO standards are a normative but non-maturity way to evaluate the efficacy and quality of product development processes. Remane et al. (2017) contest the idea that digital revolutions always take a linear course. Indirect criticism of the formalisation and linearity of maturity models is also made by Berghaus and Back (2016), who contend that management of the digital transition is frequently done intuitively rather than through strategic planning. According to Wernicke, Stehn, Sezer, and Thunberg (2021), organisations frequently experiment with digital innovations in the early phases of the transformation process or respond to external developments while more systematic planning occurs at a later stage.

The Digital Maturity Assessment Model can provide chances to incorporate new knowledge into information technology development in the banking sector by identifying the relationship between cross-channel development and digital capabilities (Magomaeva, Galazova, &Magomaeva, 2020: 195). According to Magomaeva et al. (2020: 195), this model is seen as assisting a mathematical and economic model for evaluating cross-channel information systems, providing information on the level of digital maturity of a financial institution based on the quality and quantity of modifications to existing banking products and services.

2.2.3 Business Process Management Model

According to Vasilev (2020), Business Process Management (BPM) is defined as systematic approach in which organisations use various methods through research and development to model, discover, model, evaluate, measure, improve, optimise, and improve internal business process as well external delivery in the market. For instance, an integration combination of techniques used to develop, manage and enhance business process is understood as BPM. As such, these theories can be structured and repeatable or unstructured and variable (Baiyere et al., 2020; Fischer et al., 2020; Zelt et al., 2019).

Furthermore, Zhao (2020) defines organisational inertia as an organisation's ability to make internal adjustments in reaction to significant external changes. An organisation tends to react reflexively based on prior experiences as inertia takes hold of its actions and it becomes resistant to change. This theory is applicable to the study as digitalisation is a change that occurs

in companies as a direct result of the external changes (Mitra et al., 2019; Úbeda-García et al., 2020). Technological advancements occur in our everyday lives, and businesses must adapt and change accordingly (Fischer et al., 2020; Kharabara et al., n.d.-b; Zelt et al., 2019). In this regard organisations have to change their operations, infrastructure, and sometimes their employee size in favour of the new, acceptable methods (Verhoef,2021). The researcher will use this theory to analyse how digitalisation has essentially changed the operational methods of the retail and business banking sectors. The current operational methods that organisations have will also change over time with the adoption of new technological advancements (Abbasov,2019). This theory, however, is only limited to the effects of outside influence and not what also occurs internally in the business.

Still in Business Process Management Theory, according to Harchekar (2018), organisational ambidexterity is defined as an organisation's ability to conduct its business efficiently and sustainable development that takes into cognisance short-term goals to achieve long-term objectives. For instance, organisational ambidexterity enables the organisation to utilise all organisational functions such as using both exploration and exploitation techniques to be successful. This theory is appropriate for the study as it focuses on the need for organisations to constantly change and adopt new methods of operation (Chen, 2017; Suzuki, 2019; Úbeda-García et al., 2020). In this regard, the researcher will analyse how an organisation has effectively adopted their operation to incorporate more technological advancements. It is important for businesses to constantly change and adapt as it will allow them to keep up with the demands of the industries (Dehghanpour,2018). It will also allow them to attract and retain more clients. This theory is, however, limited to the changes that a company adopts and not how it all interrupts their normal models of operation.

2.3 Empirical Literature Review

The assessment of the digital transformation and maturity between retail and business banking clients in the South African context, focusing mainly on the differences in embracing technology between FinTechs and traditional banks, uses the technology acceptance model (TAM) as part of its theoretical framework (Al-Qaysi, Mohamad-Nordin& Al-Emran, 2020; Granić &Marangunić, 2019; Kemp, Palmer &Strelan, 2019). Ma and Liu (2020) contend that the perceived ease of use of technological transformation informs the acceptance of technology (Al-Qaysi, Mohamad-Nordin& Al-Emran, 2020; Granić&Marangunić, 2019; Kemp, Palmer

&Strelan, 2019). In a sense, the FinTechs that easily embrace technology, envisage not only that technology is useful and central to the modern world of business but also believe that they can easily appropriate the technologies and use them to their advantage.

According to the Digital Maturity Assessment Model, for traditional banks, it is correct to argue that the opposite is true. The Digital Maturity Assessment Model was proposed by Davis in 1989 (Zainelden, Hongbo, Koffi& Hassan, 2020; Abd Majid & MohdShamsudin, 2019). Compared to other models that attempt to explain digital maturity or adoption, the Digital Maturity Assessment Model is seen as "more parsimonious, predictive, and robust" (Ma & Liu, 2004: 59; Al-Qaysi, Mohamad-Nordin& Al-Emran, 2020; Granić&Marangunić, 2019; Kemp, Palmer &Strelan, 2019; Venkatesh & Davis, 2000). In the next paragraph, we trace the genealogy of this concept from Davis (1986 & 1989) to its development in modern scholarship.

This argument, according to the findings contends that the perceived usefulness of technology and its perceived ease of use has a statistically significant correlation coefficient with both explanatory variables, the self-reported current usage variable and the self-predicted future usage variable (Zainelden, Hongbo, Koffi& Hassan, 2020; Abd Majid &MohdShamsudin, 2019; Davis, 1989). Ma & Liu (2004) posit that in the decade between 1990 and 2000, the digital maturity model has received considerable attention and empirical evidence to support its theoretical underpinnings (Al-Qaysi, Mohamad-Nordin& Al-Emran, 2020; Granić&Marangunić, 2019; Kemp, Palmer &Strelan, 2019; Davis, 1989; Mathieson 1991; Taylor & Todd, 1995).

It has been estimated that approximately 100 studies that are published in academic journals, conference proceedings as well as technical reports, discussing the Digital Maturity Assessment Model between the years 1989 and 2001 (Ma & Liu, 2004: 61; *See*Fairus, Imron, Priyanto &Ermanto, 2022). Terzis & Economides (2011) developed a behavioural intention model that enhances platforms such as computer-based assessments where participants interacted on media platforms. Empirical evidence from their experiment revealed that there is a positive relationship between perceived usefulness and perceived playfulness which is enabled by behavioural intention and other related variables such as social factors, computer self-efficacy, facilitating conditions as well as expected performances from the students (Terzis & Economides, 2011). Sanchez-Franco (2010) used the Digital Maturity Assessment Model conceptual underpinnings to investigate learning effectiveness in IT learning platforms.

Furthermore, according to Sanchez-Franco (2010), perceived usefulness, perceived ease of use, and perceived playfulness are instrumental to advancing technological competencies (Sanchez-Franco, 2010). In overall analysis, empirical evidence seemingly suggests that the model and robust. For instance, in existing literature, empirical tests indicate inconclusive evidence that seemingly vary considerably in terms of statistical significance and the direction of causality impact (Al-Qaysi, Mohamad-Nordin& Al-Emran, 2020; Kemp, Palmer &Strelan, 2019; Ma & Liu, 2004: 61; Venkatesh & Davis, 2000). Ma and Liu note that inconclusive results are a result of human behaviour that are difficult and complex to explain and understand and which vary from one individual to another, and are diverse in time.

In this instance, cash transfers and mobile money are transacted through financial inclusion technology and digital products such as mobile phones (Mouna & Jarboui, 2022; Senou et al., 2019; Torkelson, 2020). Scholars suggest that, in South Africa, technologies such as allowing cash transfers bear the possibility of transferring credit and debt to the recipients such that the financial system achieves market efficiency through digital platforms (Abdallah, 2016; Bede Uzoma et al., 2020a, 2020b; Bordo& Levin, 2019; Torkelson, 2020). For this research, the gap that is opened by this observation is twofold. First, it raises the need to investigate how the state of the digital transformation in South Africa is working for the relationship between banks and the SMEs and if at all it is raising the situation of indebtedness for SMEs. Feyen's (2021) work focused on individuals and would be of huge intellectual benefit if replicated with SMEs. This is because SMEs straddle the middle road between being individual corporations and being companies, including and involving many people.

2.3.1 Linking Digital transformation and business processes

Digital transformation is used to improve business customer value in banking. According to Clausen (2021), digital transformation has extensively changed the expectations that customers have toward organisations. In the past, retailers and bankers relied heavily on customers being physically present for them to be able to do any of their operations (Tyrväinen & Karjaluoto, 2019). This has changed with the adoption of technological transformations as clients can now conclude all procedures on their phones. This has resulted in a need for service providers to ensure that they make provisions for online transactions. The COVID-19 pandemic popularised an increased use of online shopping as most people were not able to physically go to any service

providers (Ismajli et al., 2022; Niu et al., 2019; Pham et al., 2020). The nationwide lockdown created an environment that encourages a hybrid work model and a more digitalised lifestyle (Bechlioulis &Karamanis, 2022d; Branca et al., 2020; Rangaswamy et al., 2022; Vaska et al., 2021b).

The continued digitalisation of the work environment has led to the globalisation of SMEs (Zhao et al., 2020). This is mainly because social media exposed these businesses to a large market (Sean Peek, 2023). They also provide payment options on their social media pages, making it easier for clients to buy their products (Ernesto Tavoletti et al., 2022). Customers are also exposed to many different types of the same product from various suppliers. In most instances, customers choose the product with the most benefits. This forces competing companies to maximise quality control in a bid to attract more clients. The organisations' products now directly relate to customers' expectations (Verhoef,2021).

Digital transformation has a tremendous effect on businesses, it can alter how businesses function, compete, and interact with their consumers (Potapova et al., 2022; Schwertner, 2017; Vaska et al., 2021b). The company's processes become automated and streamlined, adding value to customers by ensuring quicker turnaround times, cost savings, and increased productivity for the company (Abdulquadri et al., 2021; Vaska et al., 2021c). As a result of the digital transition, customer expectations are changing; they now desire a simple, quicker service tailored to their needs so businesses must employ big data and analytics to make judgements. Overall, digital transformation is changing the business landscape. Companies must keep up, or they will be left behind (Schallmo& Tidd, 2021).

In essence, digitalisation has profoundly influenced how business is conducted as it has resulted in most businesses adopting the Internet of Things (Schallmo& Tidd, 2021; Vaska et al., 2021b). In most instances, companies were focused on changing their operational models after the internet became more popular (Abdulquadri et al., 2021; Schallmo& Tidd, 2021). It also reshaped the products into being based on what the clients want instead of what the service providers want. This is mainly because customers are exposed to more service providers who sell the same product. They are more likely to choose the cheapest option with the most benefits. Digitisation has also resulted in small companies entering the global market (Zubaidah & Afifah, 2020).

According to Vasilev (2020), in as much as digital transformation can provide all the above-mentioned benefits, there are also challenges that businesses need to be aware of before they can adopt digital transformation. The most common aspect is that companies have to change their advertising methods. In the past, traditional advertising methods such as television or newspapers effectively reached many customers. In recent years, however, with the popularisation of the internet, traditional media has become less popular (Vasilev et al., 2020a). Most customers spend their time online, making social media advertising a viable option. The use of social media does not reach everyone as the adverts are categorised into a given demographic. This can lessen the number of people that know about the product. It hardly allows organisations the ability to attract new customers (Pousttchi & Dehnert, 2018). They instead have to settle for a given set of people.

Digitalisation has also resulted in customers gaining power over the products that companies can produce (Zhao et al., 2020b). In recent times customers have become exposed to a lot of organisations that sell the same product. This has resulted in most companies having to make provisions that can attract more clients. This has resulted in organisations having to always base their decisions on what the customers want and require. Social media has also given customers power over them as they can recruit other customers to boycott a product if they are not happy with it. This places many organisations under pressure to ensure that they follow specifically what the customers want. It results in many organisations just becoming the same in all their operations, the only difference being their names and employees (Vasilev et al., 2020).

Table 2. 1: Themes in digital transformations

Construct	Interpretation	Measures	References
Digital transformation	Enhanced firm-level efficiencies.	Ability to identify stages in the transformation process and improvement on the organisational process.	Bellens, (2020), IvonJenik, (2020)
Digital transformation	Improved internal Business Process	Resource coordination, efficiencies, and organisational synergy.	Bellens, (2020), IvonJenik, (2020)
Digital transformation	Utilisation of resources in the digital space.	knowledge acquisition and spill over as well as the ability to apply knowledge in decision-making; Organisational learning.	Bellens, (2020), IvonJenik, (2020)
Digital transformation	Seamless utilisation of resources and organisational capacities.	Integration of internal and external data sources. Development of firm-level efficiencies in the Business Management Process.	Bellens, (2020), IvonJenik, (2020)
Digital transformation	Rapid adaptation to changing digital transformation enhances competitive advantages in the banking industry.	Value of competitive advantages that are enabled by the digital transformation process.	Bellens, (2020), IvonJenik, (2020)

Source: Author's compilation

Following the above constructs the following initial research questions are formulated:

- What is the state of digital transformation and maturity in South Africa?
- What is digital readiness that enables customer services in retail and business customers?
- What factors influence and account for the differences in the digital transformation and maturity between retail and business banking customers?
- How can digital transformation and maturity improve business banking and retail customer value?

2.3.2 Linking digital transformation in a banking sector

There have been a lot of advances in terms of digital transformation within the banking sector. According to The World Bank Report (2022), the banking and insurance industries have been under significant pressure to implement digital transformation. As the world becomes more digital, the financial industry faces a competitive environment characterised by the introduction of new solutions, such as cryptocurrencies, artificial intelligence (AI), and cloud services, among others (Choithani et al., 2022; Saxunova & Liesl Le Roux, 2021). For example, Literature notes that, over the past decade, there have been developments around cash transfers in the banking sector powered by growth in technology and banks embracing this technology. The broader implications have been of greater financial inclusion and issues that have become central for global development discourse and central to SMEs and their relationship with banks (Effiom &Edet, 2022; Feyen et al., 2021; Harris &Wonglimpiyarat, 2019; Torkelson, 2020).

In the banking sector, like in most business sectors, digital technology has facilitated the development of new business models (Ernesto Tavoletti et al., 2022; Vaska et al., 2021b, 2021c). These new business models employ contemporary technologies to meet customer demands. Even though the digital transformation of the banking sector has become the norm, the new business model seems to be explored by small financial technology (FinTech) organisations (Tuesta, 2017). As a result, digital innovation has spawned new competition, with FinTech firms developing solutions for which larger, more established organisations that require assistance (Stefanelli et al., n.d). Financial institutions have invested significant time and resources in the creation of digital solutions to maintain their competitiveness and relevance. Authorities require assistance in developing new reforms that are consistent with the new standard as financial institutions undergo this rapid transition (Alexandros, 2022).

Financial institutions must develop digital capabilities to provide seamless customer service while balancing innovation, regulatory compliance, risk management, and business processes (Bechlioulis & Karamanis, 2022b, 2022c, 2022d; Veenman Ferdinand et al., 2021). Additionally, they must ensure that their system is secure and can protect sensitive customer data (Shinkareva, 2019). The banking sector has always been highly competitive, with large and small companies competing for market share (Vives, 2019). However, small businesses have quick access to innovative solutions, whereas large corporations rely on legacy systems and struggle to innovate (Bellens, 2020).

It has been noted that FinTech companies and other new entrants are motivated by technology to increase competition in the financial sector and challenge established financial institutions' business models (Alexandros, 2022; Shinkareva, 2019; Tuesta, 2017; Rodriguez et al., n.d.; Zhao et al., 2020a). However, there is concern that these developments continue to prioritise retail customers over business and commercial clients (Bellens, 2020). Rather than this seemingly settled notion in research on the state of digital transformation in the South African banking sector, there is, however, a need for research that looks at how even older banks, seen as legacy banks, are adopting new digital transformations in their conduct of business. Beyond that, this research would focus on how banks are harnessing the fruits of digital transformation in their business, and the implication of these differences in terms of digital transformation among banks.

2.3.3 State of digital transformation in South Africa

There have been a lot of advances in terms of digital transformation within the banking sector. According to The World Bank Report (2022), the banking and insurance industries have been under significant pressure to implement digital transformation. As the world becomes more digital, the financial industry faces a competitive environment characterised by the introduction of new solutions, such as cryptocurrencies, artificial intelligence (AI), and cloud services, among others. For example, over the past decade, there have been developments around cash transfers in the banking sector powered by growth in technology and banks embracing this technology (Kavita Robert Almeida, 2019; Ndlovu et al., 2020). The broader implications have been greater financial inclusion, an issue that has become central to global development discourse and is central to Small Medium Enterprise (SMEs) and their relationship with banks (Ghassibe et al., 2019; Lu et al., 2022b; Shihadeh& Liu, 2019).

In the banking sector, like in most business sectors, digital technology has facilitated the development of new business models. These new business models employ contemporary technologies to meet customer demands. Even though the digital transformation of the banking sector has become the norm, the new business model seems to be explored by small financial technology (FinTech) organisations (Tuesta, 2017). As a result, digital innovation has spawned new competition, with FinTech firms developing solutions for which larger, more established organisations require assistance. Financial institutions have invested significant time and resources in the creation of digital solutions to maintain their competitiveness and relevance. Authorities require assistance in developing new reforms that are consistent with the new standard as financial institutions undergo this rapid transition (Alexandros, 2022).

The COVID-19 pandemic and digitisation have accelerated the need for innovative digital customer service solutions. To provide seamless customer service, financial institutions must develop digital capabilities while balancing innovation, regulatory compliance, risk management, and business processes. Additionally, they must ensure that their system is secure and can protect sensitive customer data (Shinkareva, 2019). The banking sector has always been highly competitive, with both large and small companies competing for market share. However, small businesses have access to innovative solutions, whereas large corporations rely on legacy systems and struggle to innovate (Bellens, 2020).

It has been noted that FinTech companies and other new entrants are motivated by technology to increase competition in the financial sector and challenge established financial institutions' business models (Alexandros, 2022; Shinkareva, 2019; Tuesta, 2017). However, there is concern that these developments continue to prioritise retail customers over business and commercial clients (Bellens, 2020). Rather than this seemingly settled notion in research on the state of digital transformation in the South African banking sector, there is, however, a need for research that looks at how even older banks, seen as legacy banks, are adopting new digital transformations in their conduct of business. Beyond that, this research would focus on how banks are harnessing the fruits of digital transformation in their business, and the implication of these differences in terms of digital transformation among banks. Table 2.2 illustrates the constructs in the state of digital transformation in South Africa.

Table2.2: State of digital transformation

Construct	Interpretation	Measures	References
State of digital transformation in the banking industry.	Enhanced firm-level efficiencies in the banking industry.	Ability to identify stages in the transformation process and improvement on the organisational process.	Feyen (2021), Hakizimana, Wairimu Muathe (2023)
State of digital transformation in the banking industry.	Improved internal business processes and banking value chains.	Resource coordination, efficiencies, and organisational synergy.	Feyen (2021), Hakizimana, Wairimu Muathe (2023)
State of digital transformation in the banking industry.	Utilisation of resources in the digital space and improvement of internal efficiencies.	State of digital transformation and knowledge accumulation in the banking industry.	Feyen (2021), Hakizimana, Wairimu Muathe (2023)
State of digital transformation in the banking industry.	Resource utilisation and enhanced capacities in the banking industry.	Integration of internal and external online digital systems in the banking industry.	Feyen (2021), Hakizimana, Wairimu Muathe (2023)
State of digital transformation in the banking industry.	Change management and integration of digital transformation in the banking industry.	Change management strategies such as technology innovation, integration, and logistics in the banking industry.	Feyen (2021), Hakizimana, Wairimu Muathe (2023)

Source: Authors' compilation

Following literature and theoretical analysis, evidence suggests that financial institutions in the banking industry have different states of the digital transformation process which have had an industry-level integration process. This realisation informs the question below that seeks to answer the initial research question.

- What factors influence and account for the differences in the digital transformation and maturity between retail and business banking customers?

2.3.4 Linking how business banking in South Africa can harness the full benefits of digital transformation.

Business banking in South Africa can take full advantage of digital transformation by adopting technology-enabled solutions that enhance the customer experience and streamline internal operations. By leveraging digital channels such as mobile banking and internet banking, commercial banks can offer customers seamless access to their accounts, payments, and other banking services (Hakizimana, Wairimu, Muathe, 2023; Do, Pham, Thalassinos & Le, 2022). Using advanced analytics, banks can also gain valuable insights from customer data to improve their services and identify new growth opportunities. To mitigate the security risks associated with digital transformation, commercial banks can invest in advanced security measures such as encryption and biometrics. In addition, through partnerships with FinTech start-ups, commercial banks can leverage innovative solutions that improve service delivery and reduce costs (Hakizimana, et al, 2023; Do, et al, 2022; Indriasari, Gaol & Matsuo, 2019).

Finally, commercial banks in South Africa can take full advantage of digital transformation by prioritising customer centricity and investing in digital talent to provide innovative services that meet the needs and preferences of their customers (Hakizimana, et al, 2023; Indriasari, et al., 2019). We now turn to discuss the state of digital transformation in South African banking institutions. Most of the literature points out that before the digital transformation in the banking sector, bank customers, including businesses, had to visit a branch to apply for financial products, withdraw cash, or receive another financial service (Shin, 2020). To receive services, customers had to wait in long queues. The bank allowed its customers to submit applications for account opening, account management, and much more on paper. With the support of the sales team and customer service representatives, the branch, relationship managers, call centres and ATMs were considered the main channels for customer service.

Some of these teams need to travel to customers to build and maintain new relationships. Access to customer data was limited to the branch and call centre only (Sironi, 2018). After a few years, customers have access to digital banking, which was seen as an additional method of service delivery. Customers can now check their account balance, withdraw cash, and do other banking related tasks without having to visit a branch. The adoption of online banking and consumer product applications has increased (Jia, 2022). Banks such as Capitec, Standard Bank, and FNB can provide loans to retail customers in less than twenty-four hours, on the other hand, banks do not have the same solution for business customers (Ivon Jenik, 2020). It seems that banks have focused on providing these simple solutions for retail customers, neglecting the fact that business customers still rely mainly on relationship managers and branches due to the limited digital solutions available to them. In addition, the departments that serve bank customers continue to work independently of each other, resulting in long processing times. Traditional banking is no longer viable. Customer acceptance depends solely on banks providing the best user experience (Bellens, 2020).

Business banking customers were previously using the branch and relationship managers for services. The relationship managers used to make appointments and travel to meet customers. This is where they would conduct a needs analysis and allow customers to apply for products aligned with their needs. This process is referred to as customer and customer relationship management (Shin, 2020). The process of product application was paper-based, once the paperwork was done the relationship manager would send the documentation to the Account

Analyst who deals with processing the customer request while the relationship manager is on the go. This meant that clients had to wait for a while before their service requests were processed because the relationship manager would send the paperwork at the end of the day. This did not seem to be an issue as there were no other alternatives (Shin, 2020). Digital technologies offer both benefits and disadvantages for the banking sector. In as much as research is emerging on what digital transformations mean for banks and their clients, there is a need for research that establishes the implications of the meaning of these digital transformations in the context of the digital divide and differentiated access to digital tools among banks.

2.4 Digital readiness and digital maturity

According to Schallnno (2021), digital readiness refers to an organisation's ability to adopt technological changes. In this regard, the management of the organisation must operate using a transformational leadership method for them to easily adopt. Transformational leadership is entirely focused on a need to constantly change and adapt to how an organisation operates. A company's digital maturity process is cognisant of a series of digital maturity traits such as culture, digital competencies and skill, and processes that enable the organisation to fully realise the benefits of digital transformation. Digital maturity is essentially described as the organisation's ability to make use of different technological advancements (Clausen,2021). Organisations attain digital maturity by constantly adopting changes over the years. In this regard, the more changes a company incorporates the more digitally mature it becomes.

Banks need to practice digital readiness as they have access to very sensitive information of their clients (Zhao,2020). For instance, banks improve operational efficiencies through developing digital platforms, and for a long past, firm-level efficiencies have been on a steady trend. In a transient competitive advantage, the growth trend was satisfactory. Nonetheless, in the recent past, a surge in client expectations, financial regulations as well as market rivalry intensification, have exposed the banking industry as lagging in technological improvements. In essence, banks must ensure that all their operations are in line with the new technological advancements as it helps to improve the banking experience for their clients. This means that the management must adopt a transformational leadership methodology as it will help them to adapt constantly to the needs of the clients (Zubaidah,2020).

According to Vasilev (2020), Digital Banking Maturity is a global accelerator that enables financial institutes to develop Digital Banking Maturity by providing a comprehensive digital platform such as a mystery shopper assessment of retail banking digital systems and augments future innovations in the financial sector. In this instance, Digital Banking Maturity essentially allows banks to be able to constantly adopt to technological changes and improve the ones that they already have. This will help to improve the banking experience for their clients in the long run (Verhoef,2021).

Table 2.3: Digital maturity and transformation process

Construct	Interpretation	Measures	References
Factors that influence differences in the digital maturity and transformation process.	Differences in firm level efficiencies in the banking industry.	Different stages in the transformation process and improvement on organisational process.	Indriasari, Gaol, & Matsuo (2019), Ivon (2020)
Factors that influence differences in the digital maturity and transformation process.	Differences in internal business processes and banking value chains.	Differences in resource coordination, efficiencies and organisational synergy.	Indriasari, Gaol, & Matsuo (2019), Ivon (2020)
Factors that influence differences in the digital maturity and transformation process.	Differences in the utilisation of resources in the digital space and improvement internal efficiencies.	Differences in State of digital transformation and knowledge accumulation in the banking industry.	Indriasari, Gaol, & Matsuo (2019), Ivon (2020)
Factors that influence differences in the digital maturity and transformation process.	Differences in the resource allocation and enhanced capacities in the banking industry.	Differences in the integration of internal and external online digital systems in the banking industry.	Indriasari, Gaol, & Matsuo (2019), Ivon (2020)
Factors that influence differences in the digital maturity and transformation process.	Differences in Change management and integration of digital transformation in the banking industry.	Differences in change management strategies such as technology innovation, integration and logistics in the banking industry.	Indriasari, Gaol, & Matsuo (2019), Ivon (2020)

Source: Author's compilation

Evidence from literature synthesis and review in the present chapter informs that there is a structural difference of the digital maturity process and digital transformation that are influenced by the variations in resource mobilisation, allocation and utilisation. This analysis resonates with the initial study question of,

- What factors influence and account for the differences in the digital transformation and maturity between retail and business banking customers?

2.5 Linking Digital transformation and Customer Value

According to Abbasov (2019), digital transformation has essentially allowed clients to be exposed to a variety of products. This allows them to be able to select the best possible product to buy and use. It results in companies being under pressure to adopt to the changes as well as

provide goods that will be appealing to the customers. In this regard, digital transformation has created a need for organisations to offer services that are appealing to clients as much as possible. This is mainly because clients are no longer reliant on the service providers, but the service providers rely on the clients instead (Branca,2020). They must also ensure that their operations are up to date with the technological changes so that they can attract more clients.

Comparatively recently, digital transformation has changed the business culture through enabling a platform to create relationships with direct stakeholders such as suppliers and consumers (Poustchi,2018), as well enable innovation and sustainable growth through customer value creation and transformation of internal processes. As such, digital transformation can be understood as a process in which firms use digital technology to develop a new digital procedures and advance new business processes that enable the organisation to develop and appropriate more value for a specific organisation (Clausen,2021). For instance, technological transformation affects a business' internal systems, operational procedures, and improves firm level efficiencies. In particular, digitalisation of business processes enables interaction between consumers and businesses (Zhao,2020). As such, consumers, through digital transformation platforms, get access to countless media channels in which they communicate their business experience with service providers and other clients (Verhoef, 2021).

According to Vasilev (2020) the emergence of social media has also given clients a platform that they can use to voice their opinions about a product or service. This has also popularised 'cancel culture' whereby clients can boycott a product because they might feel it is not up to standard. This is why organisations must ensure that the service they provide their clients is exceptional so that they will not expose their inadequacies online. A good reputation can go a long way for an organisation as it will also attract new customers for them (Schallnno,2021).

2.6 Implications of the digital divide and differences of digital transformation between retail and business banking

It has been noted in literature that a digital divide exists in the banking sector's adoption of digital transformation in that, while FinTech companies and other new entrants are motivated by technology to increase competition, old established banking players still stick to the old business models (Alexandros, 2022; Shinkareva, 2019; Tuesta, 2017). This is in spite of the fact that banking customers are driving the demand for digital services. To avoid losing customers to competitors, such as FinTechs, old established banks need to deliver digital-

driven value. This study focuses on the banking sector, which is losing business customers to competitors due to a lack of digital solutions and inefficient business processes (Tuesta, 2017). This study examines the case of one of South Africa's largest banks and focuses on deconstructing the limitations of digital solutions and business processes for business and corporate customers.

Mostly, in terms of the established banks, they lack proper processes to support the relationship managers and the digital platforms as they still rely on old business processes that were initially designed for branch and call centre services (Alexandros, 2022; Shinkareva, 2019). This is made worse by the fact that the digital teams and the relationship banking teams work in silos. This engenders the lack of transformation. The relationship managers do not have the necessary KPIs that enable them to respond to digital leads, because of this they see digital platforms as competition, and they do not prioritise digital leads or promote the bank's digital offerings. The long waiting times result in the bank losing customers to its competitors, as mentioned earlier. There is a lack of a clear definition of the Digital Journey, the bank has a high number of digital leads but a poor conversion rate. If this trend continues, the bank's reputation could suffer, and it could lose loyal and potential customers. This means that the bank will lose its market share and reputation, and will not reach its revenue targets.

Furthermore, changes in economic behaviour, epidemics tend to accelerate technological and behavioural trends (Saka, Eichengreen& Aksoy, 2022). Saka, et al. (2022) study the change of economic behaviour and the uptake of technology with specific reference to FinTech adoption and usage. They pose questions around whether past epidemics induced a shift toward remote-access of financial technologies such as online banking and ATMs, and away from traditional brick-and-mortar bank branches. In their methodology they combine data on epidemics worldwide with nationally representative Global Findex surveys of individual financial behaviour fielded in more than 140 countries in 2011, 2014 and 2017 (Saka, et al., 2022). In that their approach is quantitative and is based on secondary data, the gap that emerges is still that of what happens on the ground in real terms rather than in a picture created by statistics. This research is qualitative and seeks to answer the question of how in real terms, the differences in the uptake of digital technologies by banks plays out in the South African banking market.

In their paper on the digital divide and the financial sector, Mignamissi&Djijo (2021), argue that there are two ways in which new technologies impact this sector. First, digital diffusion is

seen as promoting rapid financial development through access to financial services leading to financial inclusion (Mignamissi&Djijo, 2021; Sassi & Goaied, 2013). Here, ICTs are seen as having a positive impact on the financial sector and economic growth (Lindblom and Rasanen, 2017). The second way in which ICTs are seen as impacting on the banking sector is through the potential to reduce information asymmetries through the stimulation of competition between formal and informal finance (Mignamissi&Djijo, 2022; Morck et al., 2000; Waverman et al., 2005). This is an idealistic view of technology in the banking sector. More importantly, this view neglects the digital divide which haunts the financial sector in many ways. First it is seen among the banking customers, and second between countries as financial markets. However, the gap always remains on how the digital divide affects the banking sector internally. In other words, how the gap between FinTechs and traditional banks in the uptake of digital transformations is affecting the banking sector. This is the gap that this research seeks to fill. Table 2.4 below illustrates the relationship between digital transformations and customer value.

Table 2.4: Digital Transformation and customer value

Construct	Interpretation	Measures	References
Digital transformation and Customer Value	Improved service delivery in both retail and business banking.	Digital transformation process and improvement on organisational process and banking platforms.	Magomaeva, Galazova, &Magomaev, (2020), Mignamissi, &Djijo, (2021).
Digital transformation and Customer Value	Increase of products and service portfolio in both retail and business banking.	Resource coordination, efficiencies and organisational synergy in customer service delivery process.	Magomaeva, Galazova, &Magomaev, (2020), Mignamissi, &Djijo, (2021).
Digital transformation and Customer Value	Increase in value prepositions in both retail and business banking.	State of digital transformation and knowledge accumulation in the banking and retail markets segments.	Magomaeva, Galazova, &Magomaev, (2020), Mignamissi, &Djijo, (2021).
Digital transformation and Customer Value	Increase in market share and competitive advantages in both retail and business banking.	Efficiency in the integration of internal and external online digital systems that improve value preposition.	Magomaeva, Galazova, &Magomaev, (2020), Mignamissi, &Djijo, (2021).
Digital transformation and Customer Value	Increase in customer convenience and customer satisfaction in both retail and banking market segments.	Value addition and synergy benefit in customer satisfaction in retail and banking market segments.	Magomaeva, Galazova, &Magomaev, (2020), Mignamissi, &Djijo, (2021).

Source: Author's compilation

In the backdrop of literature analysis and synthesis, evidence in this study suggests that the digital transformation process enhances developing firm level efficiencies such as customer and product portfolio, customer satisfaction in retail and banking industry. Thus, literature evidence is informed by the following question:

- How can digital transformation and maturity improve business banking and retail customer value?

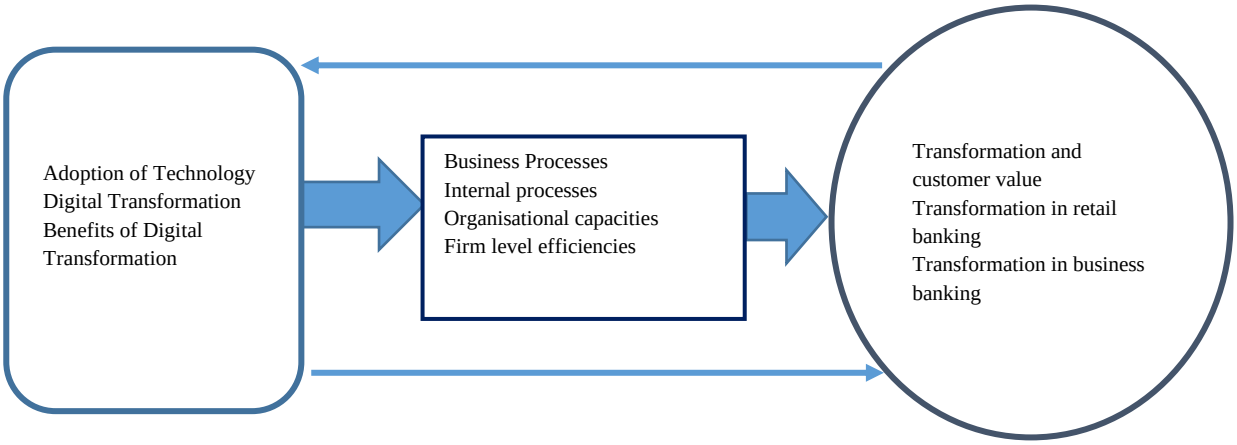
2.7 Analytical Framework

In this section, a discussion on the analytical framework is advanced to illuminate the theoretical gaps that inform knowledge development processes in the present study. For instance, in this study, there is also a need for research that focuses on how the adoption of new technologies by banks is playing out in practical ways in South Africa's banking sector. This is to mean there is a gap between rhetoric – that banks are embracing digital transformation – and what is exactly happening – that is if at all the adopted technologies are leading to any differences and changes. This is because technology exists in the context of their adoption. While before technologies such as ATMs, business customers have been seen to wait long hours in queues for services as basic as withdrawing or banking money, with the emergence of load shedding, this challenge is seen to be returning (Obermeier et al., 2020; Ülkü et al., 2022).

Furthermore, in the Business Process Management Theory, an argument contends the adoption of digital solutions in the banking industry is linked to organisational variables such as resources, organisational capabilities that enable change management and the achievement of short- and long-term sustainable goals. Therefore, in the conceptual framework, it is the overarching of this research to fill in this gap by looking at how these challenges that afflict the adoption of technology by banks are resolved in such a way that there is benefit in adopting technology. Bankers need to learn more about technology and see digital capabilities as a support rather than a threat. Relationship managers do not have IT and digital skills, and they have to do a lot of administrative work and less advisory work, this is affecting the service turnaround time.

Relationship managers are also dissatisfied with customer service because there are too many handoffs and teams need better ways to collaborate and share information. Currently, there are

too many hand-offs in customer service, which leads to long processing times. The transition to digital banking has brought some obstacles for financial organisations and customers. Banks have been in a digital transformation for many years. There are more digital options for retail customers than for business customers. This upsets business customers because it delays their access to banking services. The lack of digital solutions and convergence with relationship bankers has created a big gap between retail and business customers. Figure 2.1 illustrates the analytical framework that informs the initial research questions, objectives and hypothesis.



Source: Authors' compilation

2.8 Conclusion

This chapter has fleshed out the literature review of the present study. It has been noted that the uptake of digital technologies by banks does not mean that there will be a simple improvement of services and access to them by all their clients. Contextual developments have implications. For instance, epidemics and pandemics such as Covid-19, in reducing access between people, can accelerate the uptake of technology in the banking sector such as the use of ATMs rather than the brick-and-mortar facilities of visiting a branch. Supportive infrastructure like lack of dependable electricity would mean that the ATMs are not working most of the time and as a result creating challenges such as queues. Challenges such as the swallowing of people's cards by the ATM when they use it soon after the electricity returns compels people back to the brick-and-mortar facility to have their problems addressed. This is usually the challenge in traditional banks that lack facilities to afford customers to get their cards at kiosks in branches. It is never a challenge with FinTechs that are technologically savvy.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

This chapter delves into an explication of the methodology of the present study. And as noted before, this study is an assessment of the digital maturity between retail and business banking clients in the South African context. The central aim of the research is to explore ways in which banks' in South Africa can harness the full benefits of digital transformation. In that many businesses are now looking at digital transformation as a new revenue stream, the bank must keep up with the trends if it still wants to compete in the financial industry. This study has a scope of making sense of the gap in digital solutions for business and commercial customers. The research is qualitative in its methods to help explore the phenomenon. This chapter discusses the methodology and the methods that are used to gather and analyse data in understanding the ways in which financial banks' in South Africa can harness the full benefits of digital transformation. The chapter is structured in such a way that, first, is the discussion of the methodology or research design, then the research methods and the sampling techniques used in the research.

3.2 Research Philosophy

In the scientific knowledge development analysis, a research philosophy is defined as the research paradigm in which a set of procedures and approaches inform the data methodological framework of a scientific experiment (Creswell & Creswell 2017). For instance, in this study, the research approach adopted interpretivism and phenomenology as its research paradigm that seek to inform the knowledge development process. Therefore, the present study made use of the interpretivism approach of phenomenology that advances an argument that in order to gain an in-depth understanding of a research problem one has to engage critical discourse analysis through interpreting themes and codes that emerge from the data analysis (Flick, 2016).

3.3 Research Design

In this study, consistent with the research objectives, a qualitative research methodology offers a detailed analysis on the respondent experience on a specific subject matter (Marvasti, 2004; Denzin &Lincoln, 2000). In this instance, the historically specific situation that this dissertation studies is this time when digital technologies have grown in a significant way and play an

important role in businesses, including banking. By its nature, qualitative research design is continuously interpretive and interpretive in its scientific knowledge development process (Denzin &Lincoln, 2000). Creswell (2017) suggests that researchers use qualitative research to investigate the perceptions and experiences of the participants towards a specific subject matter. Creswell (2021) contends that in qualitative research, qualitative researchers are interested in probing issues on how the themes in the subject matter make sense to their personal experiences. The research in part wants to make sense of the meanings that Standard Bank, as an institution, attaches to the new operational environment which is influenced by digital technologies.

Following Maxwell (2008) in the interactive model approach, the present study places the research question and the research objectives at the centre of the conceptual framework to inform on the validity and reliability of the research instruments. Qualitative research is understood from an epistemological perspective as using methods such as case studies and participant observation inform on the interpretive approach in the scientific knowledge development process (Parkinson and Drislane, 2011; Nkwi, Nyamongo, and Ryan, 2001; Guest, Namey and Mitchell, 2013).

For instance, qualitative data is implemented in three strands such as images, text, and sounds (Creswell and Creswell 2017). Denzin and Lincoln (2008) emphasise the point that qualitative research is contextualised and "consists of a set of interpretive, material practices that makes the world visible".

Qualitative research mostly relies on interpretivism. Therefore, an interpretivism approach in qualitative research is informed by a constructionist approach that is relevant in social and human sciences. As such, the interpretive research approach is diverse and includes perspectives such as critical theory analysis and poststructuralism (Guest, Namey and Mitchell,2013). Walsham (1993) contends that interpretive methodological procedures to research is informed by the reality of knowledge, and it embraces social construction by human beings.

According to Geertz (1973), an interpretivism research approach underscores on the symbols of social science without neglecting the material issues of life (1973). Guest, Namey and Mitchell posit that the interpretivist approach is that in qualitative research the concern is

"revealing multiple realities as opposed to searching for one objective reality" (2013). This comes out of the realisation that 'objective reality' is illusive.

3.5 Research Approach

In this section, an argument is advanced to appraise the research framework that was used to achieve the study objectives and answer the initial research questions as projected in Chapter One. For instance, in the study, the scientific knowledge development process is approached in three dimensions. First, as noted in Chapter Two, the study presented conceptual and theoretical framework and inferred on the research gaps that inform the research questions and the methodological choices. Second, the study advanced a discussion on data collection methods. Third, the study discusses using the data analysis approach. Therefore, given the nature of the interpretivism approach, the study adopted a qualitative data analysis approach as the scientific method to analyse the digital maturity assessment between retail and business banking clients.

Therefore, the selection of the qualitative research approach to investigate the digital maturity between retail and business banking clients is influenced by the intention of the objective to analyse themes that accommodate human subjectivity. In this instance, the present study adopted the thematic analysis in order to uncover the factors that influence digital maturity in retail and banking clients.

3.6 Data collection methods

The data collection methods included mainly interviews. In a scientific research approach, in-depth interviews are taken as conversations between a researcher and the study participants who are selected in the belief that the participants have reliable knowledge on the subject matter. In this instance, the interview is an exchange of ideas, information and knowledge between the researcher and the research participant (Kvale, 1996). In Creswell and Creswell (2017), the in-depth interview process is described as a conversation between the interview and the study participants that is guided by structure and a purpose to probe more information and produce reliable scientific findings in a specific subject matter.

Nonetheless, the research interview process might be disturbed by structural issues in the in-depth interview process. These relate to the control measures that are exercised by the researcher when probing for further information. Kvale (1996) argues that if the research interest target in understanding a certain group of people, their experiences in a specific subject matter, it is, therefore, imperative that those people should be probed. As such, in-depth interviews are motivated by the need to get first-hand information on a specific subject by the people involved in the process. Kvale (1996) posits that in-depth interviews target to answer the initial research questions using the knowledge developed by the experiences of people who are involved in a specified process. The qualitative and in-depth interview is a "construction site of knowledge" (Kvale, 1996).

After analysing data from the questionnaires, the researcher followed them up with in-depth interviews with a selection of the respondents. The researcher interviewed employees of a specified bank, especially at head office to understand the bank's digital transformation attitude. The researcher also interviewed business customers and stakeholders of the bank so as to understand the context around which the bank operates and how it is viewed by those who do business with it.

3.5 Population

The population includes the employees, especially senior executives of the bank, and their business partners, especially the clients, relationship managers, and digital platform operators. The employees, especially senior employees of the bank are important for this research because they are at the centre of implementing the banks' digital transformation strategy. They also understand how the bank is located in the context of South African banking as far as digital transformation of the sector is concerned. The clients of the bank, especially businesses, are important for this research because there are high chances that they are doing business across the banking sector and therefore can compare banks. They are in a position to say if, on the digital platforms, the bank is user friendly or not, and how it compares with other banks in the banking sector. This may prove to be a large group of people to possibly interview and therefore a sampling strategy was used as described below. The aim would be to get to a point of saturation, where the interviewees keep repeating material.

Following Creswell and Creswell (2017) the population of the study is defined as the total number of observations in a specific research inquiry. For this study, the population refers to

retail and business clients and employees of a specific bank who use a specific branch in Johannesburg as their point of banking services. Notably, the total population is that of the retail banking sector in which the total number of clients is 200 and in the business banking sector of which the total number of clients is 180, as well as 22 employees who work for the bank in the branch in Johannesburg.

3.5 Sample and sampling procedures.

The research used a combination of purposive and convenience sampling strategies. The researcher interviewed seven bank employees and these were selected through purposive sampling. Purposive sampling is where the researcher approaches people that they know will yield the data needed to answer the research questions. These were senior or middle managers who are aware and understand the bank's digital strategy.

The researcher interviewed four retail clients and four business clients doing business with the bank. Here, the researcher used convenience sampling to approach both retail and business banking clients. This study had two stratum, each strata had a sample size of eight respondents. From Creswell and Creswell (2017), in a qualitative study, the sample size between 8 and 15 respondents are considered reliable to produce valid results in a scientific study.

Table 3.1 : Sampling size and sampling process

Type of respondent	Sample Size	Sampling strategy
Bank executives	8	Purposive sampling
Business and Retail Clients Sample		
Retail clients	4	Convenience sampling
Business clients	4	Convenience sampling

Source: Author's compilation

Business Executives: The population includes all business executives working for the bank with over seven years of experience in finance and digital business. Data sources consist of the organisational chart and the HR database. To ensure accuracy and exclusivity, the HR list is verified with the organisational chart, duplicates are removed using employee ID numbers, and the final list is reviewed to include only business executives. Review dates are set for 07/03/2023, and the list is cross-checked with both the organisational chart and the HR database.

Business Clients: This group comprises all business clients with an active transactional account for at least one year, who use the bank's digital platforms at least once a month, and are tech-savvy. Data is sourced from the customer relationship manager system (CRM) and quarterly reports. Accuracy is maintained by comparing the CRM list with quarterly reports to identify new clients, using business registration for unique identification, and verifying the accuracy of contact information. The list is reviewed to ensure it includes only business clients, with review dates on 07/03/2023, and data is cross-referenced with quarterly reports.

Retail Clients: The population includes all retail clients with an active transactional account for at least one year, who use the bank's digital platforms at least once a month, and are tech-savvy. Sources of data are the CRM system and recent activity reports. To ensure accuracy, the CRM list is compared with activity reports, and customer information is updated as necessary. Exclusivity is maintained by ensuring the list includes only retail clients. Reviews are conducted on 07/03/2023, with monthly activity reports and the CRM database cross-referenced with quarterly reports.

3.6 Research instruments

The study used semi-structured interviews which are attached in Appendix A and B. The research instruments are aligned to research questions and objectives. For instance, the scientific process targeted the generation of data using two different samples based on the assumption that there is a fundamental difference in the digital maturing experience from a customer's perspective and banking executive's perspective.

3.7 Procedure for data collection

The interviews were conducted in-person and appointments were made with the interviewees. Conducting face-to-face interviews provided the added advantage of asking for certain documents that can back the claims that the interviewees would be making, if there are any. It also allowed the researcher the opportunity to observe and note nuances in the interviewees' responses.

3.8 Data analysis and presentation

The collected data was analysed through a combination Critical Discourse Analysis (CDA) and thematic analysis. The interviews were transcribed and, in that way, turned into text. To analyse both the interview transcripts and the documents collected from interviewees, the researcher used Fairclough's (1992, 1995) three levels frame model. Here the interview transcripts and documents were subjected to a close reading in the context of the theoretical framework of this research. Discourse analysis and the understanding of the relationship between power, knowledge, and discourse and the "operation of power through symbolic forms still depends on ideological investigation" (McDonald, 2003: 27). In linguistics, discourse is considered as language in use; but a Foucauldian approach focuses on discourse as "ways of looking at the world, of constructing objects and concepts in certain ways, of representing reality in other words, with attendant consequences for power relations" (Baker and McEnery, 2015: 4–5). Texts that can be studied here can range from conversations between two people, or conversations in group interviews or focus groups.

As noted, a thematic analysis is defined as a data analysis approach in which behavioural trends in data can be observed to capture the themes that decompose the research phenomenon (Newby, 2014). For instance, this approach is usually applied on textual data in the form of interview transcripts. Therefore, in this method, the researcher intensively analyses the alignment of themes, codes and emerging themes to examine particular patterns in each research phenomenon (Punch &Oancea, 2014). As postulated by Braun and Clarke (2006), thematic analysis is arguably the most used qualitative method of analysis as it allows the researcher to explore all dimensions of respondents given the decoded themes (Punch &Oancea, 2014).

For instance, the adoption and application of thematic analysis are more critical, in particular, when the research objective is to uncover, positions and insights within a specific group of respondents (Pickard, 2013). It is, therefore, a data analysis procedure that enables the researcher to analyse a variety of themes from unprocessed information derived from the study respondents. Consistent with Brown and Clarke (2006), in this study, the adoption of thematic analysis as a data analysis strategy, the study followed a six-step approach that is listed below:

Step One: Familiarity with the data

In this step, the researcher has developed a literature review chapter that is in line with the research questions and objectives (Creswell, 2014).

Step Two: Generation of Codes

In this step, the researcher observed patterns in data through the development of codes and verbatim from the generated data. Creswell and Creswell (2017) suggest that this process takes into account data reduction where data is interpreted into meaningful codes and verbatim.

Step Three: Compiling of Codes

In this step, the researcher compiled codes and verbatim that uncover patterns in data.

Step Four: Coherent Recognition of themes

In this step, themes and codes are cross-checked and aligned to the literature analysis and review presented in the literature review section. Creswell and Creswell (2017) suggest that this process can be implemented through listing codes and verbatim to emerging themes from respondents.

Step Five: Definition of themes

In this step, the researcher provides a clear analysis of the representation of themes, codes, and verbatim that are derived from the research participants.

Step Six: Report Writing

In this step, the researcher develops the scientific report in terms of themes that are decoded and the analysis of the literature review.

3.9 Issues of Trustworthiness

Stokes and Wall (2017) suggest that trustworthiness in the knowledge development process is also known as rigor in the research process. These authors contend that the concept of trustworthiness relates to trust in the quality of data, and data collection tools in terms of validity and reliability (Stokes & Wall, 2017). Therefore, this concept measures the quality, validity, and reliability of research instruments used in a scientific inquiry. As such, the concept of trustworthiness is informed by elements such as credibility and dependability. All these concepts were applied accordingly in this study.

3.9.1 Dependability

Furthermore, dependability is another critical aspect of thematic analysis in a scientific inquiry. Stokes and Wall (2017) suggest that dependability is informed by the consistency and reliability of research findings. Thus, it is derived from the reliability and validity of research instruments that were applied in particular scientific experiments (Stokes & Wall, 2017). To ensure dependability, the present study documented all data collected for this particular study. The sample size is drawn from three distinct groups. This is known as the triangulation process.

3.9.2 Credibility

In scientific research inquiry, credibility is another critical aspect that informs the knowledge development process. Thus, it is concerned with the degree of credibility of the scientific findings of a specific research (Stokes & Wall, 2017). For this study, the sample size is drawn from three distinct groups (Triangulation). This approach would enhance and enable the credibility through cross-checking the validity of research instruments.

3.10 Ethical considerations

In this section, an argument on ethical procedures that inform the scientific research process is advanced in the context of the methodological procedures as discussed above. As noted, in the scientific knowledge development process, regulations and protocols that regulate the production of knowledge should be applied in the knowledge production process (Patten & Newhart, 2017). For instance, these regulations relate to informed consent, confidentiality, and beneficence. Thus, these issues are explained in detail in the sections that follow.

3.10.1 Informed consent

According to Creswell and Creswell (2017), informed consent is defined as approval that is sought by the researcher to collect information from study respondents in a specific scientific inquiry. This process is important to ensure that the scientific process is not harmful to the respondents as respondents were allowed to withdraw from the study process without further consequences. For this study, a consent letter was sent to all study respondents which enabled the researcher to get informed consent before the interviews.

3.10.2 Confidentiality

Patten and Newhart (2017) contend that confidentiality is one of the fundamental ethical considerations as it is meant to protect the privacy of research respondents. It is, therefore, critical in a scientific research process that the research respondent's details are kept private and confidential. Thus, to ensure this protocol, the present study codified all research instruments that were used in the data collection process.

3.10.3 Beneficence

Furthermore, beneficence is defined as the quality to ensure that there is no harm to research participants during and after the data collection process (Swift & Piff, 2014). As noted, the consent letter ensured that there was no harm in withdrawing from the interview process.

3.11 Conclusion

This chapter has fleshed out the methodology of the study whose gist is to assess digital transformation and digital maturity in the South African banking sector and landscape. This assessment has been done using the specific case of Standard Bank, South Africa. The chapter has presented and discussed the qualitative approach of the study and study design, data collection, data analysis, and other procedures that come with it. Notably, the themes in this research were discussed in threefold ways. Firstly, the research philosophy and approach were discussed. Secondly, this chapter discussed data collection procedures and tools. And, thirdly, the data analysis procedure was discussed. The following chapter presents and discusses the data that was collected.

CHAPTER 4: DATA ANALYSIS, INTERPRETATION AND DISCUSSION

4.1 Introduction

This chapter constitutes the presentation, analysis, interpretation, and therefore, the discussion of the study. As noted before, this study is an assessment of the digital maturity between retail and business banking clients in the South African context. Its central aim is to explore ways in which the banking industry can harness the full benefits of digital transformation. The results presented in this chapter reflect the objectives of the study which were to examine the digital maturity between retail and business banking clients in the South African context. To achieve these objectives, this research utilised qualitative data obtained from semi-structured interviews with a purposefully selected sample of eight participants in retail and business banking clients and eight from the business banking executives. For ease of reference, this chapter is purposefully arranged to provide a clear and comprehensive presentation of the study's results. In Section 4.2, the discussion is directed to explain the characteristics of the sample in which issues such as gender, education and sex are discussed. These traits enable this study to understand the knowledge base that was observed in the scientific research process. In Section 4.3, research questions are presented to recap the scientific knowledge process. Section 4.4 presents a review of the data collection methodology in the context of the observed evidence and research questions. Section 4.5 ensures the credibility and trustworthiness of the findings. In Section 4.6, the focus is on the presentation and discussion of prevalent themes that were present among participants in connection to the research questions. Section 4.7 is critical to this study since it outlines key themes that emerged from participant responses and are critical to answering the research questions for the study.

4.2 Research Questions

Consistent with the rest of the study, the main research question is: How can financial banks in South Africa harness the full benefits of digital transformation so that they can be competitive in the new evolving banking sector in South Africa?

The secondary research questions include:

- What is the state of digital transformation and maturity at Standard Bank in South Africa?

- What is digital readiness that enables customer services in retail and business customers?
- What factors influence and account for the differences in the digital transformation and maturity between retail and business banking customers?
- How can digital transformation and maturity improve business banking customer value?

4.3 Data Collection Procedure

To assess the digital maturity between retail and business banking clients in the South African context and explore ways in which banks in South Africa can harness the full benefits of digital transformation, this study used qualitative data that was collected from retail and business banking clients' strata and bank executives strata using two different open-ended research instruments (See Appendix A and B). The primary data implementation process was conducted by an in-depth interview procedure. This procedure was adopted to enable the generation of knowledge through observation from non and verbal communication techniques in the interview process as advised by Corbin and Strauss (2015). In this instance, the use of semi-structured interviews enabled the research process to uncover elements of digital technology that enable and enhance digital transformation.

4.3.1 Credibility and Trustworthiness of Findings

In this study, critical aspects of credibility and trustworthiness to ensure the robustness and integrity of the conclusions regarding the assessment of digital maturity in South Africa were explained in the context of the research process. Notably, in the significance of these factors, the researcher employed rigorous measures to enable the trustworthiness and credibility of the scientific process is illuminated below.

4.3.2 Credibility

The researcher maintained data credibility by triangulating primary evidence as observed from the interview process and theoretical analysis deduced in Chapter Two. As informed by Santos *et al*. (2020), this approach enhances the credibility of data and enriches the depth and richness of the study's insights. Furthermore, the scientific process cross-referenced and verified data points, ensuring accuracy and coherence in the information gathered. This process enhanced the overall credibility of scientific findings.

4.3.3 Trustworthiness

Consistent with McDonald, Schoenebeck, and Forte (2019), an all-inclusive record of the research methodology process was maintained in the research process to ensure the trustworthiness of scientific findings. This approach enhanced a robust mechanism for external members to audit the research process and findings. It ensured clarity and transparency in reporting the study's procedures as well as the trustworthiness of the scientific findings. This commitment to rigorous documentation adds an extra layer of trustworthiness to the scientific results.

4.4 Participants' Response Rate

Table 4.1 below illustrates the participant's response rate in retail and business banking clients. This examination of the participants' response rate provides valuable insights into the assessment of digital maturity between retail and banking clients in South Africa as well as banking executives.

Table 4.1: Response Rate of Participants

Banking Executives	**NUMBER OF PARTICIPANTS**	**RESPONSE (%)**
Projected Interviews	10	100%
Conducted Interviews	8	80%
Rejected Interviews	2	20%
Retail and Banking Clients	**NUMBER OF PARTICIPANTS**	**RESPONSE (%)**
Projected Interviews	10	100%
Conducted Interviews	7	70%
Rejected Interviews	3	30%

Source: Interview data

In Table 4.1, the study aimed for 10 projected interviews in retail and business clients and a further 10 in business executive's strata. In the business executives, the projected data collection process targeted 10 respondents; nonetheless, 8 respondents provided data through interviews while 2 respondents turned down the request. A similar, trend is observed in the retail and business banking clients, the projected data collection process targeted 10 respondents, however, 7 respondents provided data through in-depth interviews whereas 3 respondents turned down the request.

As such, the response rate in both samples is considered acceptable by established standards outlined by Wu, Zhao, and Fils-Aim (2022), ensuring a robust representation of perspectives within the study. Therefore, the high response observed in Table 4.1 enables the credibility and trustworthiness of scientific findings that are discussed in the later sections.

4.4.1 Demography of the Sample

In this section, an in-depth exploration of the demographic details was observed in both samples. This section explains the age distribution of participants, their gender composition, ethnicity, functional areas, experience levels, and educational backgrounds. As such, Table 4.2 illustrates the demographic traits that offer valuable insights into the diverse traits of data sources that inform the knowledge development process in the present study.

Table 4.2: Summary of the Demographical Information of Participants

No.	DIVISION	AGE	GENDER	ETHNICITY	DIGITAL BANKING (IN YEARS)	EDUCATIONAL LEVEL
1	Retail Client	42	M	Black	15	Master's Degree
2	Retail Client	37	M	White	8	Master's Degree
3	Business Client	53	M	Black	2	Master's Degree
4	Clients	52	F	Black	3	Honours Degree
5	Clients	33	M	Asian	6	Bachelor's Degree
6	Clients	37	F	White	9	Honours Degree
7	Clients	49	F	Black	7	Honours Degree
Business Executives Respondents						
1	Business	67	M	White	10	Matric
2	Business	52	F	Asian	12	Diploma
3	Business	57	F	Asian	10	Bachelor's Degree
4	Business	48	M	Black	8	Diploma
5	Business	52	F	Asian	12	Honours Degree
6	Business	46	F	White	10	Honours Degree

7	Business	39	F	Black	11	Honours Degree
8	Business	62	M	Black	12	Bachelor's Degree

Source: Interview data

4.4.2 Age Distribution of Participants

In Table 4.2, in the retail and business clients respondents, evidence suggests that the age distribution of participants ranges between 33 and 53 years of age. In the business executive respondents, the age range is between 37 and 69 years of age. Therefore, this inclusivity captures insights from individuals at various career stages, and different stages in life and their experience in digital banking.

4.4.3 Gender Profile of Participants

Table 4.2 above, provides an overview of the gender distribution in both retail and banking industry sample statistics. In the retail and business clients sample, the participants consist of four males and three females. In the business executives sample, evidence indicates that the sample consists of five females and three females. The sample statistics indicate that participants reflect a gender mix that contributes to the diversity of perspectives. The sample gender composition in both business executives and retail and business clients suggests that the gender distribution observed in the study impacts the findings by offering a range of perspectives shaped by diverse experiences in digital banking products.

4.4.4 Ethnicity of Participants

In ethnicity discussions, evidence in Table 4.2, informs on ethnic composition in business and retail clients samples. Evidence from Table 4.2 encompasses a diverse range of ethnicities, including white, black, and white-Indian, reflecting a rich and diverse ethnic mix that enables a rich foundation in assessing digital maturity. For instance, in the business and retail clients sample, evidence indicates that black respondents account for 37.7%, whites account for 25% and Asians account for 37.5% of the sample size.

Furthermore, in the banking executives sample, evidence suggests that white respondents account for 29%, blacks account for 57%, and Asians account for 14%. This evidence indicates South Africa's multicultural population (Seekings, 2011), and it enhances the credibility of the

scientific findings. The diverse representation ensures findings resonate broadly, enriching insights into the heterogeneous South African society and contributing to the research question.

4.4.5 Experience Level in Digital Banking

In examining the functional areas and experience levels of the participants, a diverse range is observed. As indicated in Table 4.1, in the retail and business clients sample, the participants have 47 cumulative years of digital banking experience. In the business executives sample, evidence in Table 4.1, suggests that respondents have 75 years of cumulative experience using digital banking platforms.

4.4.6 Educational Background of Participants

In Table 4.2, evidence suggests that participants who took part in this study had a varied range of educational qualifications from Matric to a Master's Degree. For instance, in the retail and business clients sample, sample respondents who have an Honours Degree account for 42%, respondents who have a Master's Degree account for 42% and those who have a Bachelor's degree account for 14%. In the business executives sample, evidence indicates that respondents who attained a diploma account for 25% of the sample statistic, those who attained a Matric account for 12%, and those who attained an Honours Degree account for 37.5%.

4.5 Presentation of Results

In this section of data analysis, results presentation and discussion of key themes are arranged and aligned with the research questions as illustrated in section 4.2. In Section 4.5.1, the focus is on themes relevant to the first research question, providing insights into the state of digital banking in South Africa. Section 4.5.2 focuses on the digital readiness that enables customer services that enable retail and banking services. Subsequently, Section 4.5.3 explores themes and factors that influence and account for the differences in digital transformation and maturity between retail and business banking customers. Section 4.5.4 illustrates how digital maturity can improve banking services. This structured approach ensures a coherent and purposeful exploration of key themes corresponding to each research query.

4.5.1 State of digital banking in South Africa

This section is a comprehensive presentation and discussion of results derived from a thematic analysis of prevalent themes related to the state of digital banking in South Africa. Table 4.3 below, depicts a summary of these themes as observed from primary evidence, followed by an in-depth discussion elaborating on each theme's significance and implications.

Table 4.3: Summary of Results – State of digital in South Africa for business clients

Theme code number	Theme Code Description	(Sub)Categories	Emerging Themes
1.1	Banking apps are available on smartphones and they provide good service since they enable clients to transact online.	Smoothness in transaction	Optimal engagement with clients
	Digital banking instruments are user-friendly and accessible.		
1.2	Sufficient accessibility to necessary platforms in B2B transactions.	Integration of the financial system in B2B transactions.	Cost-efficient and fast transactions.
	Economic and easy to use in B2B transactions.		
1.3	Accessibility to necessary platforms in electronic commerce.	Accessibility to international markets.	Increased convenience in financial planning.
	Economic and easy to use in electronic commerce		

4.5.1.1 Optimal engagements with clients

As depicted in Table 4.3, in exploring the state of digital banking in South Africa, Theme 1.1 emerged, highlighting optimal engagement with clients through digital banking platforms. Participants 1, 3, 5, and 8 collectively underscored that digital banking platforms improve engagement with clients through enabling online transactions. For example, Participant 1 emphasised that digital banking platforms enable smooth banking processes, noting that:

> *The digital banking facility enables smooth transactions in B2B platforms and enhances the business' financial process by providing an easy financial link with both suppliers and customers.*

Participant 3 echoed this sentiment, emphasising the banking digital platforms:

> *Digital banking platforms are critical in ensuring seamless banking facilities through enabling electronic business platforms.*

Participant 5 further emphasised the advantages of digital banking facilities in South Africa, stating that:

> *The convenience of digital platforms in enabling seamless transactions informs on strategic financial positions in enhancing the smoothness of working capital.*

For instance, Participant 8 substantiated the above views, arguing that:

> *There's adequate information about digital banking platforms and their relative products that enhance business functions through proactive financial systems enabled by digital banking facilities.*

In line with the above views, it is evident that the state of digital banking in South Africa is quite advanced and enables business transactions through the facilitation of electronic commerce. Thus, it can be argued that this theme underscores that the state of digital banking in South Africa is quite advanced as it supports business financial systems and strategy. This aligns with broader observations that digital technology has facilitated the development of new business models that employ contemporary technologies to meet customer demands (Kotarba, 2018). The digital transformation of this industry has become the norm, however, these new business models seem to be explored by small financial technology (FinTech) organisations (Kotarba, 2018; Li, 2020; Ramdani et al., 2020). In the process, digital innovation has spawned new competition, with FinTech firms developing solutions for which larger, more established organisations require assistance (Berman et al., 2022).

4.5.1.2 Integration of financial systems

According to Table 4.3, Theme 1.2 highlights the factor that the state of digital banking in South Africa enables the integration of financial and banking systems. Participants 1, 2, 3, and 8 collectively emphasised various instruments that integrate the financial system into South Africa's banking system.

Commenting on the integration of financial systems, Participant 1 pointed out that:

> *Different products in digital banking in South Africa enable the integration of the banking system and make it far easier to manage financial issues through the implementation of financial plans such as business transactions.*

According to Participant 2,

> *Most business people rely on digital banking products and services to implement financial obligations, digital banking services and products are flexible across the*

South African banking spectrum and they offer an easy solution to the movement of money.

This highlights that digital banking enables an easy flow of money that enables business operations by improving on the deployment of working capital.

Participant 3 echoed these sentiments, emphasising that:

Through digital banking facilities, it is far easier to deploy financial instruments and financial obligations as they become due.

Participant 8 emphasised the financial aspect, stating that:

Through financial banking facilities, it is easier to make business transactions that support business strategies. Financial instruments enhance the accessibility of financial instruments such as money and capital markets.

This theme aligns with existing literature on South Africa's financial institutions that have invested significant time and resources in the creation of digital solutions to maintain their competitiveness and relevance (Rime et al., 1999; Vives, 2019). Authorities require assistance in developing new reforms that are consistent with the new standard as financial institutions undergo this rapid transition (Alexandros, 2022).

4.5.1.3 Accessibility of electronic commerce

According to Table 4.3, one of the key aspects of digital banking is the enabling factor of electronic commerce. Participants 4, 5, 6, and 8 shared insights into the aspects of digital banking that enable electronic commerce.

Particularly, Participant 4 highlighted that digital banking systems are critical in enabling electronic commerce, emphasising that:

The efficiency of the digital banking systems makes it easy to be involved in international trade since transactions can be made online in both supply and customer networks.

Participant 5 shed light on the efficiency of the digital banking systems in enabling electronic commerce, stating that:

The digital banking facility is critical in enabling electronic commerce which facilitates international trade and market efficiencies by eliminating information asymmetries in the market.

Participants 6 and 7 echoed these sentiments, expressing the importance of digital banking platforms in enabling participation in international markets.

This theme aligns with the literature review and analysis that cash transfers and mobile money are transacted through financial inclusion technology and digital products such as mobile phones (Mouna & Jarboui, 2022; Senou et al., 2019; Torkelson, 2020). Scholars suggest that, in South Africa, technologies such as allowing cash transfers bear the possibility of transferring credit and debt to the recipients such that the financial system achieves market efficiency through digital platforms (Abdallah, 2016; Bede Uzoma et al., 2020a, 2020b; Bordo& Levin, 2019; Torkelson, 2020).

4.5.1.4 Themes from Banking Executives

In this section, a comprehensive presentation and discussion of results derived from a thematic analysis of prevalent themes related to the state of digital banking in South Africa evidence from banking executives. Table 4.4 below, depicts a summary of these themes as observed from primary evidence, followed by an in-depth discussion elaborating on each theme's significance and implications.

Table 4.4: Summary of Results – State of digital in South Africa for business clients

Theme code number	Theme Code Description	(Sub)Categories	Emerging Themes
1.1	Digital platform products have high sunk and transaction costs.	Sunk cost is absorbed over a specific period.	Cost constraint
	Digital banking instruments are expensive to maintain.		
1.2	Maintenance costs are always rising due to cyber fraud	Financial risk in international and local financial systems.	Cost-efficient and fast transactions.
	Proactive mechanism to eliminate cybercrime associated with digital banking.		
1.3	Structural changes	Design of different products and services.	Control mechanism in digital banking platforms.
	Business process transformation		

4.5.1.5 Cost of Developing Digital Banking Products.

As depicted in Table 4.4, in exploring the state of digital banking in South Africa, Theme 1.1 emerged, highlighting the sunk and transaction costs in developing digital banking products

that offer service value to business and retail clients. Participants 1, 3, 5, and 8 collectively underscored that digital banking services have a high sunk cost and transaction cost. For example, Participant 1 emphasised that investment in a digital banking platform takes a lot of capital expenditure, noting that:

> *The investment in digital banking platforms such as ATMs, mobile banking facilities and banking applications involves huge sunk costs since banking institutions in South Africa might outsource these services from efficient service providers.*

Participant 3 echoed this sentiment, emphasising the capital expenditure of banking digital platforms:

> *The investment in digital platforms is expensive as it involves a complete overhaul of the banking system moving from traditional banking to digital banking.*

Participant 5 further emphasised the transition from traditional banking to digital banking in South Africa, stating that:

> *The investment in digital banking platforms overhauls the organisational structure of the banking industry. Such changes affect the movement of workers as the closing of bunking halls.*

In this instance, Participant 8 substantiated the above views, arguing that:

> *The transition from traditional banking to digital banking needs to be integrated into the strategic position such that it will take into account the need to cater for long-term strategic decisions such as investment and human capital.*

In line with the above views, it is evident that the transition from traditional to digital banking facilities is a strategic decision that takes into account sunk and transaction cost approaches. This evidence is contained in the literature analysis that digital transformation is used to improve business customer value in banking. According to Clausen (2021), digital transformation has extensively changed the expectations that customers have toward organisations. In the past, retailers and bankers relied heavily on customers being physically present for them to be able to do any of their operations (Tyrväinen & Karjaluoto, 2019). This has changed with the adoption of technological transformations as clients can now conclude all procedures on their phones. This has resulted in a need for service providers to ensure that they make provisions for online transactions. The COVID-19 pandemic popularised and increased the use of online shopping as most people were not able to physically go to any service providers (Ismajli et al., 2022; Niu et al., 2019; Pham et al., 2020). The nationwide lockdown created an environment that encourages a hybrid working model and a more

digitalised lifestyle (Bechlioulis&Karamanis, 2022d; Branca et al., 2020; Rangaswamy et al., 2022; Vaska et al., 2021b).

4.5.1.6 Cost of mitigating risk in digital platforms

According to Table 4.4, Theme 1.2 highlights the factor that developing digital banking platforms involves the cost of mitigation and alleviation of cyber risk. Participants 1, 2, 3, and 8 collectively emphasised various instruments are developed to mitigate risk in South Africa's banking system.

Commenting on the cost of risk in digital platforms, Participant 1 pointed out that:

> *Different risk mitigation strategies in digital banking in South Africa enable a safe banking system and make it far easier to manage financial issues through the implementation of financial plans such as business transactions.*

According to Participant 2,

> *While digital banking platforms provide an easy service of banking products there is a big threat in dealing with cybercrime that is associated with risk in digital platforms.*

This highlights that the investment in digital banking platforms should also consider the investment in risk mitigation strategies.

Participant 3 echoed these sentiments, emphasising that:

> *Through digital banking facilities, it is far easier to overrun criminal syndicates that clone business banking apps, clone debit or credit cards etc.*

Participant 8 emphasised the financial risk aspect, stating that:

> Al*though digital banking systems are critical in supporting organisational service plans because it enables service delivery and accessibility to financial instruments, the biggest challenge is that these digital products expose business and banking clients to cybercrime activities. These strategies should link with the overall business plan that involve knowledge about clients*

This primary evidence concurs with the literature analysis that it is important for banks to practice digital readiness as they have access to very sensitive information of their clients (Zhao,2020). For instance, banks improve operational efficiencies through developing digital platforms, and for a long past, firm-level efficiencies have been on a steady trend. In a transient competitive advantage, the growth trend was satisfactory. Nonetheless, in the recent past, a surge in client expectations, financial regulations as well as market rivalry intensification, have

exposed the banking industry as lagging in technological improvements and increased the risk of cybercrime.

4.5.1.7 Structural Changes

According to Table 4.4, one of the key aspects of the state of digital transformation in South Africa is structural changes related to business processes and service designs. Participants 4, 5, 6, and 7 shared insights into the aspects of digital banking that enable structural changes.
Particularly, Participant 4 highlighted that digital banking systems expose the banking industry to structural changes, emphasising that:

> *The structural changes in adopting digital banking platforms require a structural change that augments new service designs. This approach should be sensitive to the change management process.*

Participant 5 shed light on the structural changes which are enabled by the state of digital banking in South Africa, stating that:

> *The digital banking facility has effected changes in the structural form of business as it informs on organisational resource endowments and the deployment of tangible and intangible resources.*

Participants 6 and 7 echoed these sentiments, expressing that the digital state in the banking industry informs on structural changes which emanates to change management within the banking industry.
This theme aligns with the literature review and analysis that, banks must ensure that all their operations are in line with the new technological advancements as it helps to improve the banking experience for their clients. This means that the management teams must adopt a transformational leadership methodology as it will help them to adapt constantly to the needs of the clients (Zubaidah,2020).

4.5.2 Digital readiness that enables customer services in retail and business customers.

In this section, a comprehensive presentation and discussion of results derived from a thematic analysis of prevalent themes related to digital readiness that enables customer services in retail and business customers. Table 4.5 below depicts a summary of these themes as observed from primary evidence, followed by an in-depth discussion elaborating on each theme's significance and implications.

Table 4.5: Summary of Results – Digital Readiness

Theme code number	Theme Code Description	(Sub)Categories	Emerging Themes
1.1	Demand for new products	Efficiencies in digital banking	Product portfolio
	Inward and outward transactions		
1.2	Sufficient accessibility to digital platforms products	Integration of the financial system in B2B transactions	Cost efficient and fast transactions
	Product ranges in banking transactions.		
1.3	Understanding of products in digital platforms	Use of digital products	Number of digital products
	Knowledge of products		

4.5.2.1 Product Portfolio Offers

As depicted in Table 4.5, in exploring digital readiness in South Africa, Theme 1.1 emerged, highlighting a digital product portfolio with clients through digital banking platforms. Participants 1, 3, 5, and 8 collectively underscored that digital platforms offer a different range of products that enable online business and personal transactions. For example, Participant 1 emphasised that digital banking platforms offer a wide range of products that perform different functions, noting that:

> *The digital banking platforms offer a wide range of products that can be used to send or receive money from national and international financial markets.*

Participant 3 echoed this sentiment, emphasising the product diversity of digital banking platforms:

> *Digital banking products are able to link us with clients in the same bank, we can do transactions from my bank to other banks and we can receive and send money to other financial institutions.*

Participant 5 further emphasised the digital banking facility in South Africa providing a wide range of products and services that make it easier to make financial transactions, stating that:

The convenience of digital platforms offer a more flexible approach in planning your financial transactions such as spending and saving and the flow of money.

For instance, Participant 8 substantiated the above views, arguing that:

The diversity of banking platform products enables both business and retail clients to plan around financial streams through layers of savings and cheque accounts and electronic wallet products.

From the primary evidence, it is evident that the state of digital banking in South Africa is quite advanced and offers a variety of products that provide seamless banking experiences to business and retail clients. These include cash transfers and mobile money which are transacted using financial inclusion technology and digital products such as mobile phones (Mouna&Jarboui, 2022; Senou et al., 2019; Torkelson, 2020). Scholars suggest that, in South Africa, technologies such as allowing cash transfers bear the possibility of transferring credit and debt to the recipients such that the financial system achieve market efficiency through digital platforms (Abdallah, 2016; Bede Uzoma et al., 2020a, 2020b; Bordo& Levin, 2019; Torkelson, 2020).

4.5.2.2 Accessibility to digital banking platforms

In Table 4.5, Theme 1.2 highlights the digital readiness in banking in South Africa. Participants 1, 2, 3, and 8 collectively emphasised various instruments that indicate digital readiness in South Africa. Commenting on the digital readiness in South Africa, Participant 1 pointed out that:

Different products in digital banking in South Africa are available in banking applications that are enabled by Android based mobile phones, cellphone banking and the Automated Teller Machines (ATM).

According to Participant 2:

The readiness of digital banking in South Africa is quite advanced as it is provided on many platforms which are within the reach of business and retail clients.

This highlights that digital banking products are designed to enable the smoothness of transactions and Participant 3 resonates with these sentiments, underscoring that:

Digital banking products are offered in many platforms which are quite accessible on and easy to use in day-to-day interactions.

Participant 8 underscored the accessibility aspects, stating that:

In South Africa, digital banking platforms are accessible through cellphones by exploring banking applications, they are easily available and enable seamless transactions. Further, the digital banking products are accessible in phones and enhance financial inclusion through cellphone banking.

Evidence in this study concurs with the literature analysis that the adoption of digital technology to transform company processes and enhance the customer experience is known as "digital transformation." This strategy involves maximising the speed, adaptability, and inventiveness of business processes by using tools like artificial intelligence, cloud computing, big data analytics, and the Internet of Things (Kemp, Palmer &Strelan, 2019).

4.5.2.3 Knowledge of digital banking products

Following Table 4.5, evidence suggests that one of the key aspects that indicate the digital readiness that enables consumer service in retail and business clients is knowledge of digital banking products. Participants 4, 5, 6, and 8 shared insights into the aspects of digital banking that enable electronic commerce. Particularly, Participant 4 highlighted that digital banking systems are critical in enabling consumer services, underscoring that:

The efficiency in the digital banking systems depend on the knowledge of the products that are offered by digital banking platforms.

Participant 5 shed light on the fact that knowledge of digital banking products enhance efficiencies in digital readiness, highlighting that:

The digital banking facility offers a wide range of products that differ in product performance and its use. These products are a bit sophisticated they need clients to understand how to use them.

Participants 6 and 7 echoed these sentiments, expressing the importance of knowledge that will make it easy for clients to use digital banking products.

This evidence is buttressed by the literature analysis that digital transformation is often driven by changing customer preferences, expectations and knowledge of digital products as well as advancements in technology. Successful digital transformation requires a clear strategy, leadership commitment, and investments in technology, talent, and organisational culture (Shinkareva, 2019).

4.5.2.4 Themes from Banking Executives

This section is a comprehensive presentation and discussion of results derived from a thematic analysis of prevalent themes that are related to digital readiness that enables customer services in business and retail clients and banking executives. Table 4.6 below depicts a summary of these themes as observed from primary evidence, followed by an in-depth discussion elaborating on each theme's significance and implications.

Table 4.6: Summary of Results – State of digital in South Africa for business clients

Theme code number	Theme Code Description	(Sub)Categories	Emerging Themes
1.1	Product portfolio design	Relevancy to business and retail clients' demands.	Service design
	Intra and inter-banking services		
1.2	Business process design	Business process redesign	Service design improvements
	Deployment of tangible and intangible assets		
1.3	Transformational leadership	Process innovation	Control mechanism in digital banking platforms
	Business process transformation		

4.5.2.5 Product Portfolio Design

As depicted in Table 4.4, in exploring digital readiness in the banking sector of South Africa, Theme 1.1 emerged, highlighting the product portfolio design of digital banking products is essential and provides service value to business and retail clients. Participants 1, 3, 5, and 8 collectively underscored that product portfolio design is important in digital banking. For example, Participant 1 emphasised that designing a project mix that satisfies business and retail clients is essential in digital banking platforms, noting that:

> *The investment in digital banking products should be aligned with the needs of both business and banking clients. These relate to intra and inter-banking products.*

Participant 3 echoed this sentiment, emphasising the importance of aligning the product portfolio mix with clientele demand for goods and services:

> *Designing a product portfolio that augments service delivery is a critical stage that enables customer satisfaction.*

Participant 5 further emphasised that the delivery of the right product portfolio mix is critical in digital readiness in South Africa, stating that:

> *Digital readiness is supported by the right product mixes such as the availability of ATMs per square km, products in cellphone banking, and products in banking applications.*

In this instance, Participant 8 substantiated the above views, arguing that:

> *The readiness in digital banking is illustrated by strategic decisions that support the innovation of new products and their relevant alignment to the clientele demands. This also relates to strategic alliances with network providers to support cellphone banking and cash-send products.*

In line with the above views, this evidence augments the literature analysis that the purpose of a maturity assessment is to identify areas for improvement and to develop a roadmap for enhancing organisational performance. The output of a maturity assessment is typically a report that outlines the organisation's current maturity level, areas for improvement, and recommendations for enhancing its capabilities and practices to achieve higher levels of maturity (Sironi, 2018).

4.5.2.6 Internal Process Design

According to Table 4.6, Theme 1.2 highlights the factor that digital readiness is reflected in the internal process design that supports digital maturity. Participants 1, 2, 3, and 8 collectively emphasised that internal processes should be designed to support digital platforms.

Commenting on service redesign, Participant 1 pointed out that:

> *An assessment of digital maturity is measured by the readiness of banks to offer a product portfolio mix that is aligned with customer preferences and this product mix is supported by internal processes.*

Participant 2 added,

> *The digital maturity process and its readiness are supported by a careful redesign of the internal banking industry, these relate to changes in resources endowment such as tangible and intangible resources that support the initiative.*

This highlights that the readiness of digital maturity is supported by resources such as capacities and investment outlay. Participant 3 echoed these sentiments, underscoring that:

> *Internal process design informs on the changes from traditional banking systems to business models that are supported by digital platforms. This includes reducing*

banking halls, increasing ATMs that can withdraw and deposit money as well including a wide range of products on banking apps.

Participant 8 emphasised the business process, stating that:

The adoption of digital products is a fundamental change that inform on business process designs to support new business models.

Primary evidence concurs with the literature analysis that a business process management (BPM) systematic approach in which the organisation uses various methods through research and development to model, discover, model, evaluate, measure, improve, optimise, and improve internal business processes as well external delivery in the market. For instance, an integration combination of techniques used to develop, manage, and enhance business processes is understood as BPM. As such, these theories can be structured and repeatable or unstructured and variable (Baiyere et al., 2020; Fischer et al., 2020; Zelt et al., 2019).

4.5.2.7 Product Support Strategy

In Table 4.6, one of the key aspects that define digital readiness enables customer services in retail and banking clients. Participants 4, 5, 6, and 7 shared insights into the aspects that define digital readiness that enable customer services in retail and banking clients.

In particular, Participant 4 highlighted that product support strategies enables customer services in retail and banking clients, emphasising that:

The structural changes in adopting digital banking platforms should be supported by product support strategy, these relate to developing information brochures that educate clients on different digital products and how can be used by clients.

Participant 5 shed light on the need to promote and support digital banking products that inform on the readiness of banking in South Africa, stating that:

The digital banking facility has several products that are developed to enable seamless transactions, nonetheless, the challenge is that several products are not used by clients due to a lack of knowledge. Thus, we need to invest in product support through a promotion strategy.

Participants 6 and 7 echoed these sentiments, expressing that the digital readiness that enables customer services in retail and banking clients is informed by the knowledge of different products and how they can be deployed to achieve seamless transactions.

The primary evidence in this study buttresses the literature analysis that the digital maturity assessment approach can provide chances to incorporate new knowledge into information technology development in the banking sector by identifying the relationship between cross-channel development and digital capabilities (Magomaeva, Galazova, &Magomaeva, 2020: 195).

4.5.3 Factors that influence and account for the differences in the digital transformation and maturity between retail and business banking customers.

In this section, a comprehensive presentation and discussion of results derived from a thematic analysis of prevalent themes related to factors that influence and account for the differences in the digital transformation and maturity between retail and business banking customers. Table 4.7 below depicts a summary of these themes as observed from primary evidence, followed by an in-depth discussion elaborating on each theme's significance and implications.

Table 4.7: Results - Factors that influence differences.

Theme code number	Theme Code Description	(Sub)Categories	Emerging Themes
1.1	Product usage	Demand for business products	Product Portfolio
	Product range		
1.2	Promotion strategy	Promotion tools	Cost efficiencies of promotion tools.
	Targeted audience		
1.3	Cyber risks in business and retail clients	Improvement in security features	Secure banking services
	Variances in security features		

4.5.3.1 Product Usage

As depicted in Table 4.7, in exploring digital readiness in South Africa, Theme 1.1 emerged, highlighting to factors that influence and account for the differences in the digital transformation and maturity between retail and business banking customers. Participants 1, 3, 5, and 8 collectively underscored that different product usage informs the differences between

retail and business retail clients. For example, Participant 1 emphasised that digital banking platforms offer a wide range of products that perform different functions in both business and retail clients, noting that:

> *Digital banking platforms offer a wide range of products that can be used to send or receive money from national and international financial markets. These products differ in the usage between business and retail clients.*

Participant 3 echoed this sentiment, emphasising the product usage of digital banking for both business and retail clients:

> *Business and retail clients use different products in digital banking platforms, and the difference in product usage is driven by differences in customer preference in each market segment. In business clients, we use digital banking products to plan our cash flows as they provide a platform to deploy working capital.*

Participant 5 further emphasised the digital banking facility in South Africa provides a wide range of products and services that account for the use of digital banking platforms in South Africa:

> *Each customer segment has a different need for product usage, resultantly; both business and retail clients have different usage of the product. Particularly, in retail we largely use apps for sending and receiving money purposes.*

For instance, Participant 8 substantiated the above views, arguing that:

> *As business banking clients, we use digital banking platforms to link our customers and suppliers through B2B and B2C platforms*.

In this instance, the primary evidence in this study is consistent with the literature review and analysis that digital transformation is used to improve business customer value in banking. According to Clausen (2021), digital transformation has extensively changed the expectations that customers have toward organisations. In the past, retailers and bankers relied heavily on customers being physically present for them to be able to do any of their operations (Tyrväinen &Karjaluoto, 2019).

4.5.3.2 Promotion Strategy

In Table 4.7, Theme 1.2 highlights the factors that influence and account for the differences in the digital transformation and maturity between retail and business banking customers. Participants 1, 2, 3, and 8 collectively underscored the differences between retail and business clients in South Africa. Commenting on the factors that influence and account for the

differences in the digital transformation and maturity between retail and business banking customers, Participant 1 pointed out that:

> *The difference in product usage between banking and retail clients requires different methods of communication process.*

Participant 2 suggests that:

> *In retail business clients, we prefer a communication process and strategy that is easy to comprehend and easy to understand.*

This highlights the difference in business and retail client's needs given the spectrum of digital banking platforms. Participant 3 resonates with these sentiments, underscoring that:

> *Digital banking products should be augmented with a communication process that explains the different products and the use of banking products. The communication process tends to differ between business and retail clients.*

Participant 8 underscored the factors that influence and account for the differences in the digital transformation and maturity between retail and business banking customers, stating that:

> *In South Africa, digital banking platforms have two market segments which are the retail and business banking clients. These market segments have different ways of communication*.

Evidence in this study concurs with the literature analysis that it is important for banks to practice digital readiness as they have access to very sensitive information of their clients (Zhao,2020). For instance, banks improve operational efficiencies through developing digital platforms, and for a long past, firm-level efficiencies have been on a steady trend. In a transient competitive advantage, the growth trend was satisfactory.

4.5.3.3 Cyber risk in business and retail clients

Following Table 4.7, evidence suggests that one of the factors that influence and account for the differences in the digital transformation and maturity between retail and business banking customers is cyber risk. Participants 4, 5, 6, and 7 shared insights into the aspects of cyber risk. Participant 4 highlighted that cyber risk differs in business and retail banking platforms, underscoring that:

> *In most cases, cyber risk in business clients takes time to be noticed due to the number of transactions per day or at a given trading period.*

Participant 5 shed light on the fact that the volume of cybercrime in business and retail banking clients tends to vary with the volumes of transactions, highlighting that:

Cybercrime in business banking clients is quite intense since it involves huge volumes of transactions and might expose the bank to business risk or financial losses.

Participants 6 and 7 echoed these sentiments, expressing that the volume of transactions is the major difference between business and retail clients in digital banking.

This evidence is buttressed by the literature analysis that uses advanced analytics. Banks can also gain valuable insights from customer data to improve their services and identify new growth opportunities. To mitigate the security risks associated with digital transformation, commercial banks can invest in advanced security measures such as encryption and biometrics (Hakizimana, et al, 2023; Do, et al, 2022; Indriasari, Gaol & Matsuo, 2019).

4.5.3.4 Themes from Banking Executives

In this section, a comprehensive presentation and discussion of results derived from a thematic analysis of prevalent themes that are related to the factors that influence and account for the differences in the digital transformation and maturity between retail and business banking customers as observed by business executives. Table 4.8 below; depicts a summary of these themes as observed from primary evidence, followed by an in-depth discussion elaborating on each theme's significance and implications.

Table 4.8: Summary of Results – State of digital in South Africa for business clients

Theme code number	Theme Code Description	(Sub)Categories	Emerging Themes
1.1	Target marketing	Relevancy to business and retail clients' demands	Service design
	Market positioning		
1.2	Promotion strategy design	Promotion strategy	Communication design improvements
	Targeted audience		
1.3	Risk mitigation strategies	Process innovation	Control mechanism in digital banking platforms
	Business process transformation		

4.5.3.5 Market Position and Target Marketing

As depicted in Table 4.8, in exploring digital readiness in the banking sector of South Africa, Theme 1.1 emerged, highlighting the importance of target marketing and market positioning.

Participants 1, 3, 5, and 8 collectively underscored that the difference between retail and business banking informs on market position and market targeting strategies that target different markets. For example, Participant 1 emphasised that designing an appropriate market position that satisfies business and retail clients is essential in digital banking platforms, noting that:

> *The fundamental difference between market traits in business and retail market segments makes it clear that market position strategy should be implemented in a way that embraces those market fundamentals*.

Participant 3 echoed this sentiment, emphasising the importance of aligning the product portfolio mix with market traits in retail and business clients:

> *Designing a product portfolio that augments service delivery in each market segment is a critical stage that enables customer satisfaction. Retail and business markets demand different types of products. Hence, the product designs and portfolio should develop digital products that meet customer expectations in each market segment.*

Participant 5 further emphasised that the delivery of the right product portfolio mix is critical in each market segment, stating that:

> *Digital maturity is supported by the right product mix such as the availability of ATMs per square km, products in cellphone banking, and products in banking applications. These products should be aligned with demand in each market segment.*

In this instance, Participant 8 substantiated the above views, arguing that:

> *The readiness for digital maturity is illustrated by strategic decisions that support the innovation of new products and their relevant alignment to the clientele demands in each market segment.*

In line with the above views, this evidence augments the literature analysis that banking and retail customers are also exposed to many different types of the same product from other suppliers. In most instances, customers choose the product with the most benefits. This focuses on companies that compete to maximise quality control in a bid to attract more clients. The organisation's products now directly relate to customers' expectations (Verhoef,2021).

4.5.3.6 Promotion Strategy Design

According to Table 4.8, Theme 1.2 highlights the factor that the difference between retail and business clients is underscored by differences in the promotion strategy that communicates the

product mix of the digital banking platforms. Participants 1, 2, 3, and 8 collectively emphasised that the promotion strategy in business is not the same as in business clients.

Commenting on the promotion strategy design differences, Participant 1 pointed out that:

> *An assessment of digital maturing is measured by the readiness of banks to offer a product portfolio mix that is aligned with customer preferences, this product mix is supported by internal processes. This is augmented by the difference in promotional techniques that are used in different market segments.*

Participant 2 added,

> *The digital maturity process and its readiness are supported by a careful redesign of the communication strategy in different market segments, these relate to pricing, and communication tools that are relevant in each market segment.*

This highlights that digital maturity and assessment are indicated by product development and product design in different markets that must be relevant to customer needs.

Participant 3 echoed these sentiments, underscoring that:

> *Internal process design informs on the changes from traditional banking systems to business models that are supported by digital platforms that are sensitive to different customer needs in different market segments.*

Participant 8 underscored the difference in product and service design in retail and business market segments, stating that:

> *The adoption of digital products is a fundamental change that informs the business process designs to support new business models in relative market segments. This approach is mandated by consumer preference in different market segments.*

Primary evidence concurs with the literature analysis that these services include treasury management services, company loans, lines of credit, financing for equipment, cash management options, and cash management solutions that are specifically designed to fulfill the needs of businesses. Business banks also provide additional services including foreign exchange, merchant services, and trade financing in addition to these. Business banking is designed to help companies manage their money, maximise cash flow, and meet their financial goals (Torkelson, 2020).

4.5.3.7 Risk Mitigation Strategy

In Table 4.8, one of the key aspects that account for differences between retail and banking clients is the risk mitigation strategy. Participants 4, 5, 6, and 7 shared insights that differentiate

customer preferences in banking and retail market segments. In particular, Participant 4 highlighted that different products in the retail and banking industry have different risk factors and different levers of cybercrime, emphasising that:

> *Different products in different markets have different risk factors that need different mitigation strategies.*

Participant 5 shed light on the differences in retail and banking markets as necessitated by the difference in product portfolios offered in different markets, stating that:

> *The digital banking facility has several products that are developed to enable seamless transactions; nonetheless, different products in different market segments expose clients to different risk factors.*

Participants 6 and 7 echoed these sentiments, expressing that digital maturity can also be indicated by the mitigation of cyber risk in both retail and banking market segments.

The primary evidence in this study buttresses the literature analysis that digital transformation has a tremendous effect on businesses, it can alter how businesses function, compete, and interact with their consumers (Potapova et al., 2022; Schwertner, 2017; Vaska et al., 2021b). The company's processes become automated and streamlined, adding value to customers by ensuring quicker turnaround times, cost saving, and increased productivity for the company (Abdulquadri et al., 2021; Vaska et al., 2021c).

4.5.4 Transformation and maturity improvement in business and retail banking customer value

In this section, a comprehensive presentation and discussion of results derived from a thematic analysis of prevalent themes on the aspects of transformation and improvement of business and retail banking customer value. Table 4.9 below depicts a summary of these themes as observed from primary evidence, followed by an in-depth discussion elaborating on each theme's significance and implications.

Table 4.9: Summary- Factors that influence differences.

Theme code number	Theme Code Description	(Sub)Categories	Emerging Themes
1.1	Improve product usage	Demand for business products	Product portfolio
	Improve product range		

1.2	Improve promotion strategy	Promotion tools	Product knowledge
	Targeted audience		
1.3	Improve security aspects	Improvement in security features	Secure banking services
	Variances in security features		

4.5.4.1 Improved Product Portfolio and Usage

As illustrated in Table 4.7, in exploring digital readiness in South Africa, Theme 1.1 emerged, highlighting to factors that indicate transformation and maturity in business and retail banking customer value. Participants 1, 3, 5, and 8 respectively underscored that an improvement in product portfolio usage is critical in enabling digital maturity in South Africa. For example, Participant 1 emphasised that an improvement in product portfolio and product usage is critical in improving digital platforms, noting that:

> *There is a need to improve the range of products and product usage that can be used to send or receive money from national and international financial markets*.

Participant 3 echoed this sentiment, emphasising that an improvement of product usage for both business and retail clients is critical in digital maturity assessment:

> *To improve customer value, business and retail clients must increase the usage of different products in digital banking platforms.*

Participant 5 further emphasised that the digital banking facilities in South Africa need to improve the range of products and services used in digital platforms:

> *Even though digital platforms offer a wide range of products for both retail and business clients, there is a need to improve product usage in both market segments as these platforms improve the ease and smoothness of transactions.*

For instance, Participant 8 reinforced the above views, arguing that:

> *As business banking clients we use digital banking platforms to improve the deployment of working capital and financial planning.*

In this instance, the primary evidence in this study is consistent with the literature review and analysis that through product usage, new business models employ contemporary technologies to meet customer demands. Even though the digital transformation of the banking sector has become the norm, the new business model seems to be explored by small financial technologies (Tuesta, 2017).

4.5.4.2 Improved knowledge of banking products and services

Table 4.9 above, Theme 1.2 highlights the factors that improved knowledge of banking products and services improve customer value. Participants 1, 2, 3, and 8 collectively underscored that knowledge of banking products and services improved customer value. In this instance, Participant 1 pointed out that:

> *The knowledge of product usage in banking and retail digital banking clients improves customer value.*

Participant 2 suggests that:

> *In business clients, the banking platforms offer a wide range of products but we do not know how to use them and meet our expectations*.

This highlights that product knowledge would improve customer value in both business and retail market segments. Participant 3 suggests that:

> *The communication process that explains the different products and the use of banking products will enhance our digital banking experience.*

Participant 8 underscored that an improved knowledge of digital products and their relative usage can improve the banking experience, stating that:

> *The key aspect in improving the banking experience in South Africa is the increase of knowledge in digital banking products and how to use them in the digital space*.

Evidence in this study concurs with the literature analysis that digital maturity assessment suggests that the maturity model is made up of numerous criteria and dimensions. These inform on the phases of digital maturity that indicate the maturity trail in terms of addressing several goals such as product knowledge and product usage (Wernicke, Stehn, Sezer& Thunberg, 2021; Berghaus & Back, 2016; Mettler, 2011).

4.5.4.3 Elimination of cyber risk in business and retail clients

Following Table 4.9, evidence suggests that one of the factors that improve the digital banking experience in retail and business clients is the elimination of cyber risk. Participants 4, 5, 6, and 7 shared insights into the aspects of cyber risk. Participant 4 highlighted that cyber risk differs in business and retail banking platforms, underscoring that:

> *In most cases, we fear that our transactions are exposed to cyber criminals, and we might lose our money in digital banking platforms.*

Participant 5 shed light on the fact that the elimination of cybercrime increases the value of digital baking in both retail and business clients, highlighting that:

Cybercrime in business banking clients is quite intense since it involves huge volumes of transactions and might expose the bank to business risk or financial losses.

Participants 6 and 7 echoed these sentiments, expressing that cyber security increases their digital banking experience.

This evidence is buttressed by the literature analysis and it has been noted that a majority of maturity models have their roots in quality management and continuous improvement movements (Wernicke, Stehn, Sezer& Thunberg, 2021). This is appropriate for understanding and assessing the maturity process and related firm-level changes in customer satisfaction and riskless banking experience.

4.5.4.4 Themes from banking executives

In this section, a comprehensive presentation and discussion of results derived from a thematic analysis of prevalent themes which is related to the aspects that inform on the improved customer value in digital banking experience. Table 4.10 below depicts a summary of these themes as observed from primary evidence, followed by an in-depth discussion elaborating on each theme's significance and implications.

Table 4.10: Summary of Results – Improved Customer Value

Theme code number	Theme Code Description	(Sub)Categories	Emerging Themes
1.1	Increase product development budget	Relevancy to business and retail clients' demands	Improved applications
	Market positioning		
1.2	Improved promotion budget	Promotion strategy	Communication design improvements
	Promotion strategies		
1.3	Increase security budget	Process innovation	Control mechanism in digital banking platforms
	Business process transformation		

4.5.4.5 Improved product development

As depicted in Table 4.10, in exploring the aspects, Theme 1.1 emerged, highlighting the importance of increasing budgets to develop products and simplify banking applications as a

way of improving the customer banking experience. Participants 1, 3, 5, and 8 suggest that there is a need for continuous improvement of banking applications to improve their banking experience. For instance, Participant 1 emphasised that designing an appropriate product mix would increase the digital banking experience, noting that:

> *In a world where technology changes every minute, it is critical to have a product innovation plan that will continuously improve digital banking products*.

Participant 3 echoed this sentiment, emphasising the need to improve digital banking products:

> *Designing a product portfolio that will increase service delivery is critical and it should be augmented by the timely improvement and maintenance of these systems.*

Participant 5 further emphasised that the improvement of the product portfolio is critical in sustainable customer service delivery, stating that:

> *The digital maturity assessment should be strongly augmented by an improvement in the service design and products that make it easy to conduct online transactions.*

In this instance, Participant 8 substantiated the above views, arguing that:

> *The readiness for digital maturity is indicated by the ease and smoothness of transactions through digital banking platforms.*

This evidence concurs with the literature analysis that digitalisation has improved businesses as well as the methods that can be adopted to maximise the benefits of digitalisation (Schallnno,2021). This theory is only limited to the changes that are made in the business and not how their traditional methods are affected.

4.5.4.6 Improved promotion strategy design

According to Table 4.10, Theme 1.2 highlights the factor that the aspects increase customer value in business and retail banking segments. Participants 1, 2, 3, and 8 collectively emphasised that the increase in the promotion strategy budget might increase customer value as it enables the usage of digital banking products.

Commenting on improved promotion strategy design differences, Participant 1 pointed out that:

> *An assessment of digital maturity is measured by the readiness of banks to offer a product portfolio mix that is aligned with customer preferences, this product mix is supported by internal processes. The usage of this product is supported by knowledge of the usage which is communicated through the promotion of goods and services.*

Participant 2 added,

An increase in promotion strategy will make it easy for our products and services to be accessed by clients and this will increase their value.

This highlights that digital maturity and assessment are indicated by the value derived from product usage through the ease and smoothness of transactions.

Participant 3 echoed these sentiments, underscoring that:

Product design should include promotion strategies that increase knowledge of each product and how they can be used to enable customer value.

Participant 8 underscored the importance of communicating the benefits of digital products, stating that:

The communication of digital products to banking and retail clients makes it easy to use those products and derive sustainable customer value.

Primary evidence concurs with the literature analysis that the communication of digital products to banking and retail customers enhances access to customer values and satisfaction.

4.5.4.7 Improved risk mitigation strategy

In Table 4.10, one of the key aspects that account for the improvement of risk in digital banking platforms is a way to improve sustained customer value. Participants 4, 5, 6, and 7 shared insights that improve customer value in digital platforms.

In particular, Participant 4 highlighted that different products in the retail and banking industry have different risk factors and different levers of cybercrime, and elimination of cyber risk improves customer value, emphasising that:

Different products in different markets have different risk factors that need different mitigation strategies, increasing budget and eliminating cyber risk increases customer value.

Participant 5 shed light on the importance of eliminating cybercrime, stating that:

It is important to invest in improved security aspects that enable sustainable customer value.

Participants 6 and 7 echoed these sentiments, expressing that improving security aspects is critical in sustainable customer value. The primary evidence in this study buttresses the literature analysis that in as much as digital transformation can provide all the above-mentioned benefits, there are also challenges that businesses need to be aware of before they can adopt digital transformation. These challenges relate to cybercrime and fraud (Vasilev, 2020). These

relate to the larger problem of information security that has accompanied the modern and globalised information landscapes.

The findings of this study closely align with existing literature, offering a nuanced understanding of the factors influencing digital transformation and maturity among retail and business banking customers. Both the findings and literature underscore the distinct product usage patterns between business and retail clients on digital platforms. Business clients primarily utilize these platforms for cash flow management and B2B connections, whereas retail clients predominantly use them for sending and receiving money. The literature emphasizes the necessity of digital transformation for enhancing efficiency and competitiveness, which is supported by our findings.

In terms of promotion strategy, the study highlights the importance of tailored communication methods aligned with each segment's preferences, consistent with the literature's recommendation for improving communication processes to enhance digital readiness.

Regarding cyber risks, the study reveals that business clients face heightened risks due to higher transaction volumes, a finding corroborated by literature advocating for advanced security measures in digital transformation efforts. The importance of target marketing and market positioning is similarly emphasized in both the findings and literature, with a focus on aligning product portfolios with customer needs to achieve digital maturity.

Lastly, the study's insights on risk mitigation strategies underscore the need for tailored approaches across different market segments, in line with the literature's broader discussion on the impact of digital transformation on business operations and the importance of efficient risk management.

Overall, this study not only corroborates existing literature but also provides specific insights relevant to the South African banking sector, offering practical guidance for banks seeking to enhance their digital maturity.

4.6 Conclusion

This fourth chapter of the present study has provided a presentation, analysis, interpretation, and eventually the discussion of the data that was collected during the research of the study. As such, this chapter is central to this study in so far as it is here that the observations, arguments, and conclusions of the study are made. The assessment of digital transformation and maturity in the banking industry of South Africa has been conducted in this study. This assessment was based on primary evidence collected through open-ended research instruments. Data was collected in two samples, one from business and retail clients and the other from banking executives. For ease of reference, the themes are aligned with research questions and research objectives. The following chapter constitutes the conclusion of the study that projects the recommendations and suggestions of the present study.

CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summation of the present study. As such, the conclusions and recommendations which are based on the findings of the study, are presented. Noteworthy is that this is the chapter where the methodology, literature, data, and theory of the study come together to reflect a picture of how the study has met its objectives and answered its research questions. Notable in this study is that an assessment of digital readiness was conducted through an interpretive research philosophy. This approach used thematic analysis to analyse primary data from two samples, namely, business and retail respondents and business executive respondents. To conclude and provide recommendations, this chapter is arranged as follows: Section 5.2 provides the conclusion of the findings. Section 5.3 provides the recommendations that emerge from the scientific process. Section 5.4 provides suggestions for further study based on the limitations of the present study. Section 5.5 provides the conclusion of the present chapter. In that way, this study has made its contributions to literature and scholarship in the subject area of digital transformation in the banking landscape of South Africa, and the discipline of Business Management.

5.2 Summary of the conclusions

For ease of reference, this section recites research objectives and questions as they are presented in Chapter One. As such, the primary research question is: How can financial institutions in South Africa harness the full benefits of digital transformation so that they can be competitive in the new evolving banking sector in South Africa?

5.2.1 Research objectives

- To investigate the state of digital transformation and maturity in South Africa and establish how the bank has taken to digital innovations in the sector.
- To explore the digital readiness that enables customer services in retail and business segments.
- To explore the factors that influence and account for the differences in the digital transformation and maturity between retail and business customers.

- To determine how digital transformation and maturity can improve business banking customer value.

5.2.2 Conclusion

Following the research questions and objectives, this section presents a summary of conclusions based on the research questions and objectives. In this instance, the arguments in this section are informed by the evidence observed in Chapter Four.

5.2.2.1 Conclusion of Objective One

Objective One; To understand the state of digital transformation and maturity in South Africa. To conclude the argument presented is twofold. First, primary evidence concludes that the state of digital banking in South Africa offers optimal engagement with clients through digital banking platforms. Furthermore, evidence concludes that the state of digital banking in South Africa is quite advanced and enables business transactions through the facilitation of electronic commerce. Thus, it can be argued that this theme underscores that the state of digital banking in South Africa is quite advanced as it supports business financial systems and strategy. This aligns with broader observations that digital technology has facilitated the development of new business models that employ contemporary technologies to meet customer demands (Kotarba, 2018).

Second, primary evidence suggests that the state of digital banking in South Africa is quite advanced as the financial system is integrated to offer intra and inter-banking products and services. This evidence aligns with existing literature on South Africa's financial institutions that have invested significant time and resources in the creation of digital solutions to maintain their competitiveness and relevance (Rime et al., 1999; Vives, 2019).

5.2.2.2 Conclusion of Objective Two

Objective Two; To understand digital readiness that enables customer services in retail and business customers. To conclude, the argument presented is threefold. First, evidence in this study concludes that digital banking products and services are designed to satisfy the business and retail clients' preferences. For instance, primary evidence emphasised that digital banking platforms offer a wide range of products that perform different functions. As such; it is, evident that the state of digital banking in South Africa is quite advanced and offers a variety of

products that provide a seamless banking experience to business and retail clients. These include cash transfers and mobile money, which are transacted through financial inclusion technology and digital products such as mobile phones (Mouna & Jarboui, 2022; Senou et al., 2019; Torkelson, 2020).

Second, evidence concludes that accessibility to digital banking platforms is an indicator of digital readiness that enables customer services in retail and business banking clients. Particularly, evidence in this study concurs with the literature analysis that the adoption of digital technology to transform company processes and enhance the customer experience is known as "digital transformation".

Third, primary evidence concludes that knowledge of digital products is a strong indicator of digital readiness that enables customer services in retail and business clients. This conclusion is supported by the literature analysis that digital transformation is often driven by changing customer preferences, expectations, and knowledge of digital products as well as advancements in technology (Shinkareva, 2019).

5.2.2.3 Conclusion of Objective Three

Objective Three; To understand the factors that influence and account for the differences in the digital transformation and maturity between retail and business banking customers. To conclude, the argument presented is twofold. First, primary evidence concludes that product usage informs the differences between retail and business retail clients. For example, evidence suggests that digital banking platforms offer a wide range of products that perform different functions for both business and retail clients. Second, primary evidence suggests that the promotion strategy accounts for factors that influence and account for the differences in digital transformation and maturity between retail and business banking customers. For instance, digital banking products should be augmented with a communication process that explains the different products and the use of banking products. The communication process tends to differ between business and retail clients. Third, primary evidence concludes that types of cyber risk differentiate business and retail banking clients. For example, cybercrime in business banking clients is quite intense since it involves huge volumes of transactions and might expose the bank to business risk or financial losses.

The findings of this study closely align with existing literature, offering a nuanced understanding of the factors influencing digital transformation and maturity among retail and

business banking customers. Both the findings and literature underscore the distinct product usage patterns between business and retail clients on digital platforms. Business clients primarily utilize these platforms for cash flow management and B2B connections, whereas retail clients predominantly use them for sending and receiving money. The literature emphasizes the necessity of digital transformation for enhancing efficiency and competitiveness, which is supported by our findings.

In terms of promotion strategy, the study highlights the importance of tailored communication methods aligned with each segment's preferences, consistent with the literature's recommendation for improving communication processes to enhance digital readiness.

Regarding cyber risks, the study reveals that business clients face heightened risks due to higher transaction volumes, a finding corroborated by literature advocating for advanced security measures in digital transformation efforts. The importance of target marketing and market positioning is similarly emphasized in both the findings and literature, with a focus on aligning product portfolios with customer needs to achieve digital maturity.

Lastly, the study's insights on risk mitigation strategies underscore the need for tailored approaches across different market segments, in line with the literature's broader discussion on the impact of digital transformation on business operations and the importance of efficient risk management.

Overall, this study not only corroborates existing literature but also provides specific insights relevant to the South African banking sector, offering practical guidance for banks seeking to enhance their digital maturity.

5.2.2.4 Conclusion of Objective Four

Objective Four; To understand how digital transformation and maturity can improve business banking customer value. To conclude, the argument presented is threefold. Primary evidence suggests that an improvement in product portfolio usage is critical in enabling digital maturity in South Africa. In this instance, evidence concludes that even though digital platforms offer a wide range of products to both retail and business clients, there is a need to improve product

usage in both market segments as these platforms improve the ease and smoothness of transactions.

Second, evidence suggests that improved knowledge of banking products and services improve customer value. This conclusion entails primary and literature evidence that digital maturity assessment suggests that the maturity model is made up of numerous criteria and dimensions. These inform on the phases of digital maturity that indicate the maturity trail in terms of addressing several goals such as product knowledge and product usage (Wernicke, Stehn, Sezer& Thunberg, 2021; Berghaus & Back, 2016; Mettler, 2011). Third, primary evidence suggests that one of the factors that improve the digital banking experience in retail and business clients is the elimination of cyber risk. For instance, cybercrime in business banking clients is quite intense since it involves huge volumes of transactions and might expose the bank to business risk or financial losses.

5.3 Recommendations

Based on the findings, the study makes the following recommendations:

- First, from the evidence, we recommend the importance of increasing financial budgets to develop products and simplify banking applications as a way of the improving customer banking experience. In this sense, there is a need for continuous improvement of banking applications to improve banking experience. Notably, we recommend that designing an appropriate product mix would increase digital banking experience. The development of process design is critical in improving the digital banking experience in South Africa.
- Second, from the evidence, we emphasise the importance of increasing the promotion strategy budget which might enable customer value as it enables the usage of digital banking products. For instance, an assessment of digital maturing is measured by the readiness of banks to offer a product portfolio mix that is aligned with customer preferences, this product mix is supported by internal processes. The usage of this product is supported by knowledge of the usage which is communicated through the promotion of goods and services.
- Third, from the evidence, we underscore the importance of increasing financial and human capital budgets in mitigating the risk in digital banking platforms as a way to improve sustained customer value. Particularly, this recommendation might improve customer value in digital platforms. The elimination of risk elements will enable the better usage of different products in the retail and banking industry. To identify

different risk factors and different levels of cybercrime, and the elimination of cyber risk improves customer value. For instance, different products in different markets have different risk factors that need different mitigation strategies, increasing budget and eliminating cyber risk increases customer value.

5.4 Study Limitations and Suggestions for Further Study.

Consistent with the recommendations, this section presents suggestions for further study based on the limitations of the present study. Notably, the present study was successful in achieving its objectives by answering the initial research questions. Nonetheless, this study was limited in its scope in terms of context and methodology. In the first strand, this study was limited to a specific financial bank in the Johannesburg area of South Africa. Therefore, primary and qualitative data was collected through open-ended research instruments from two samples one comprising of business and retail banking clients and the other comprising of business executives. In a way, the findings of the study are limited to a specific financial bank, although they might be generalised in other financial institutions. In this instance, we argue future studies to consider incorporating evidence from a larger geographical space.

In the second strand, this study is limited to an interpretive research approach that is inclined towards qualitative studies. Like every methodological approach, qualitative research approaches have inherent weaknesses in the fact that due to their nature qualitative studies are unable to answer initial questions with positivism of a specific research phenomenon. In this understanding, we argue future studies should consider adopting a quantitative research approach to provide a different dimension to the study phenomenon.

5.5 Conclusion

In summation, this chapter has fleshed out the conclusions and recommendations of the present study. The conclusions and recommendations, notably, are in line and in answer to the objectives and recommendations of the study that are outlined in the introductory chapter. In the conclusion section, the argument and the meaning are in line with research questions and objectives. In the recommendations section, three recommendations were suggested, these include the improvement of the product mix and service design, security features of digital banking products to reduce cybercrime, and improve promotion and knowledge of digital products to improve product usage. Furthermore, the study suggests that future studies can consider increasing the geographical context and adopt a quantitative research methodology to

develop new knowledge. A mixed methods approach might, after all, reflect results that are more rounded and holistic in that the strengths of both the qualitative and the quantitative approach are brought together to bolster the aims and objectives of the study.

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Appendix A1: Research Instrument (Business and Retail clients)

Section A: Demographics

1.1. Please indicate your gender.

Male	
Female	

1.2. Please indicate your age group.

18-25	
26-35	
36- 45	
46-55	

1.3. Please indicate your Job tenure.

1.4. Position

Section B;

Research Question 1: What is the state of digital transformation and maturity at Standard Bank in South Africa?

- How would you describe the current state of digital transformation at STD Bank?
- In your experience and perspective, to what extent has digital transformation proven to be successful in reducing inefficiencies and decreasing lead times in the realm of banking services? Please provide insights, examples, and considerations that support your viewpoint.
- What strategies and initiatives do you believe STD Bank could implement or enhance to further advance and optimize its digital transformation and digital maturity efforts?

Research Question 2: What kind of digital platforms / digital readiness enables customer services in retail and business customers?

- What is the level of digital transformation that is needed in intra-banking systems for retail and business customers in accessing banking services
- How has digital transformation improved intra-banking systems in South Africa?
- What are the constraints of the banking system that hinder efficiencies of digital transformation?
- Do you think there are differences in the way in which you are being serviced as a business client when it comes to digital engagement?

Research Question 3: What factors influence and account for the differences in the digital transformation between retail and business customers?

- "As a client who utilizes both business and personal banking services through digital platforms, have you observed any distinct differences in the way you are serviced in

these two segments? Could you please elaborate on these differences and share your experiences?"

- "In your opinion, which of the two segments—business or personal banking—appears to be more advanced or matured in terms of digital capabilities and services? What specific factors or attributes lead you to this conclusion?"
- "Could you delve deeper into your observation of the digital maturity between business and personal banking segments? What particular aspects or features do you believe contribute to the varying levels of digital maturity in these areas?
- Can you provide examples of specific digital transformation initiatives or strategies that have been implemented for retail customers and business customers in your banking institution? What were the primary factors or considerations that influenced these distinct approaches?
- How do you perceive the varying digital transformation needs and expectations between your retail customers and business customers? What factors do you believe contribute to these differences?

Research Question 4 What is the effect of digital transformation and maturity on customer value?

- To what extent does digital transformation and digital maturity influence services in retail banking?
- To what extent does digital transformation and maturity influence banking services in business banking, please elaborate for me.
- How are digital transformations and digital maturity affecting overall customer satisfaction?

Appendix A2: Research Instrument (Banking Executives)

Section A: Demographics

1.2. Please indicate your gender.

Male	
Female	

1.2. Please indicate your age group.

18-25	
26-35	
36- 45	
46-55	

1.3. Please indicate your Job tenure.

1.4. Position

Section B;

Research Question 1: What is the state of digital transformation and maturity at Standard Bank in South Africa?

- How cost-effective is digital transformation in developing banking services?
- How cost-effective is digital transformation as compared to traditional banking systems?
- How effective is digital transformation in eliminating inefficiencies and lead time in banking services?
- What are some of the challenges that you may be experiencing in developing digital transformation at the bank?

Research Question 2: What kind of digital platforms / digital readiness enables customer services in retail and business customers?

- What are the major differences between retail and business customers' digital platforms?
- What are the challenges that are associated with digital transformation:
    - Retail customers
    - Business customers

- What are firm-level constraints of the banking system that hinder efficiencies of digital transformation in accessing banking services?

Research Question 3: What factors influence and account for the differences in the digital transformation between retail and business customers?

- Which human capital skills account for differences in digital transformation between retail and business banking services?
- Which technological devices influence the account of differences in digital transformation between business and retail banking customers?
- What is the cost influence in differences in digital transformation between retail and business customers?

Research Question 4 What is the effect of digital transformation and maturity on customer value?

- What is the role of digital transformation for both retail and business customers?

Appendix B: Permission Letter

24 May 2023

Group Leadership Practise

People and Culture

To: Whom it may concern

SUBJECT: PERMISSION TO CONDUCT RESEARCH IN

This letter serves to confirm that Sinaso Garane has been given permission to conduct research in . for them to fulfil the requirements of their master's degree in Business Administration through Wits Business School.

The research covers interviews with 5 executives in the organisation

The following conditions will apply:

- Permission must first be given by the relevant executive approving the interview with the relevant employees (this has been received).
- may not be named as the research site; the organisation will be referred to as a "large South African financial services organisation".
- A signed NDA has been completed.
- All interviews are entirely voluntary.

With kind regards,



Head People and Culture : Engagement and Culture Insights

Appendix C: Non-Disclosure Agreement

To: Kim Thompson
Head People and Culture: Engagement and Culture Insights Group

NON-DISCLOSURE AGREEMENT

I **Achumile Sinazo Garane** (full name) hereby declare that:

- I will not name [redacted] in my research report, I will refer to it as a large financial services organisation.
- The identity of participants will be kept confidential.
- I will treat the information gathered during my research with appropriate confidentiality.

.

Signed at **Isabel estate** this **18 day** of **May** 2023.



(Signature)

Achumile Sinazo Garane

(Full name)

Appendix D: Consent form

Wits Business School
Sculpting global leaders

WITS Business School Consent

Title: A Digital Maturity Assessment of the South African banking sector

Researcher: Achumile Sinazo Garane

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

I agree to the following:

(Please circle the relevant options below)

The research study was explained to me. I understand what this study is about.	YES	NO
I understand that I can volunteer to take part in the study	YES	NO
I agree that the interview activity may be audio recorded	YES	NO
I agree that direct quotations from my interview may be used by the researcher in their research report	YES	NO
I agree that my participation will remain anonymous (my name or other identifying data will not be used by the researcher in their research report	YES	NO
I agree that other researchers may use the information I provide in my interview/focus group/other activity (depending on their own ethics clearance being obtained) but my name and any personal information will not be used or passed on	YES	NO

Participant information

Signature _____

Name _____

Date _____

Researcher information

Signature _____

Date _____

Appendix E : Ethics Clearance Letter

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/BA381869/268
This certificate is only valid with a legitimate ethics protocol number and signed by the Researcher (below).

Project title	An assessment of digital transformation of the South African banking sector
Investigator / Researcher	Miss ACHUMILE SINAZO GARANE
Nature of Project	MBA (Research Article)
Decision of the Committee	Approved, provided stakeholders and participants are guaranteed anonymity and confidentiality.
Issue Date of Certificate	2023/09/15
Expiry date	Date of submission of the project / research report
Chairperson	Dr Pius Oba ☎ +27 11 717 3976 +27 82 733 6587 ✉ pius.oba@wits.ac.za

Declaration by Researcher

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

I fully understand the conditions under which I am authorized to carry out the abovementioned research and I 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

18 September 2023
Date:

Appendix F: Proposal Approval letter

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Private Bag 3 Wits, 2050
Fax:
Tel:

Reference: Ms Jennifer Mgolodela
E-mail: jennifer.mgolodela@wits.ac.za

30 January 2024
Person No: 381869
PAG

Ms AS Garane
Unit 202, Kent Gardens
355 kent avenue
Randburg
2194
South Africa

Dear Ms Achumile Sinazo Garane

Master of Business Administration: Approval of Title

We have pleasure in advising that your proposal entitled *An assessment of digital transformation of the South African banking sector* has been approved. Please note that any amendments to this title have to be endorsed by the Faculty's higher degrees committee and formally approved.

Yours sincerely

Mrs Marike Bosman
Faculty Registrar
Faculty of Commerce, Law and Management