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Benjamin ,Jeremiah Joseph

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An Employee Perspective of Digital Adoption in a South African Bank

Student:

JJ Benjamin

Student Number: 334222

334222@students.wits.ac.za and 0834254459

Supervisor:

Jenika Gobind

jenika.gobind@wits.ac.za

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KEYWORDS

Digital Transformation, Digital Adoption, Change Management, Employees, South Africa, Financial Services, Bank

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LIST OF ACRONYMS

ADKAR – Awareness, Desire, Knowledge, Ability and Reinforcement

CAGR – Compound Annual Growth Rate

EREB – Employee readiness for e-business model

ICT – Information and Communication Technology

IDC – International Data Corporation

ITIL – Information Technology Infrastructure Library

SARB – South African Reserve Bank

TAM – Technology Acceptance Model

TAM2 – extension of TAM

TOE – Technological, Organisational and Environmental theory

UTAUT – Unified Theory of Acceptance and Use of Technology

CHAPTER 1. INTRODUCTION

1.1 Statement of purpose

This qualitative study aims to explore the factors influencing the adoption of digital technology by employees at a South African Bank. Traditional banks are being compelled to transform their ageing technology infrastructure and ways of working in order to remain competitive in the modern economy. This requires significant investment in the development and implementation of digital technology to be used by their employees. The adoption of technology by employees is necessary for banks to achieve their operational efficiency, customer experience, and performance growth objectives.

1.2 Background of the study

Digital transformation and the Fourth Industrial Revolution have become central themes for businesses seeking to survive and thrive in the modern economy. These themes may also often refer to digital maturity, digital disruption, digitalisation, Industry 4.0, and other similar terms. Most business leaders have begun to incorporate digital transformation as a central component of their strategies, particularly in the wake of the COVID-19 pandemic, which has seen the failure of many businesses worldwide that could not adequately respond and adapt to prevailing external factors (Business Wire, 2021). Whereas cost saving was ranked as one of the most critical priorities for digital strategies in 2017, by 2020, most executives believed that investing in technology for competitive advantage or refocusing their entire business around digital technologies was markedly more important (McKinsey, 2020).

While COVID-19 has resulted in the demise of some businesses, it has also seen the birth of new ones and is posited to be a catalyst for an increase in the adoption and use of digital technology across industries (Amankwah-Amoah *et al.*, 2021; Trenerry *et al.*, 2021). For example, during the height of the pandemic in 2020, Sataya Nadella, CEO of Microsoft, noted that “we saw 2 years of digital transformation in 2 months” (CIO.com, 2020). In addition, McKinsey reports that companies acted 20 to 25 times faster than expected to respond to a range of COVID-19-related changes. Furthermore, in the case of remote working, companies moved 40 times more quickly than they thought possible before the pandemic (McKinsey, 2020). The increase in pace is echoed in a report by the International

Data Corporation (IDC) which shows that direct digital transformation investment growth rates will accelerate from a compound annual growth rate (CAGR) of 15.6% to a CAGR of 16.5% for the period 2022 to 2024, with $6.3 trillion expected to be invested over this time (Business Wire, 2021). This will mean that by the end of 2024, digital transformation will account for 55% of all information and communication technology (ICT) investment globally.

The financial services industry had been becoming increasingly competitive even prior to COVID-19. In Figure 1.1, we see that financial services hover perilously close to the centre of the Digital Vortex, where the ranking of an industry represents the extent of potential competitive disruption as a result of digital technologies and changing business models; the closer an industry is to the centre of the vortex the more vulnerable it is (Global Center for Digital Business Transformation, 2015).

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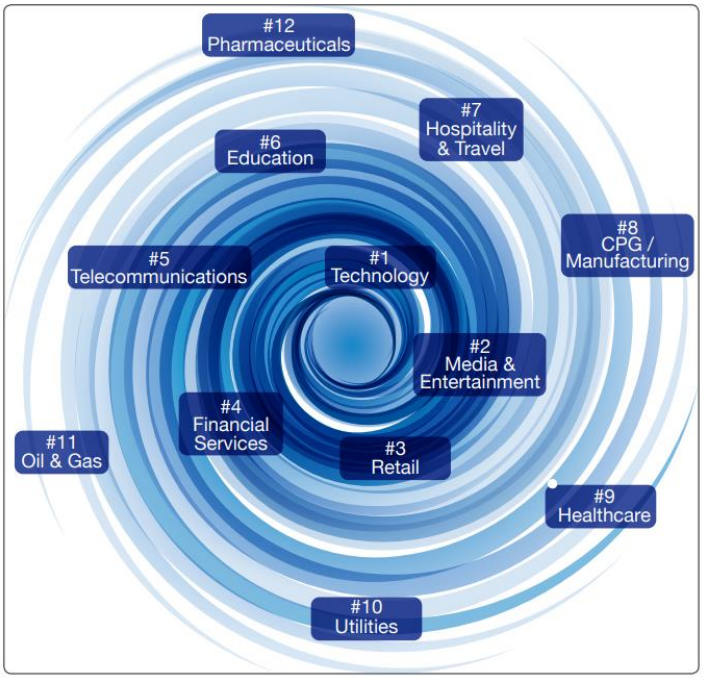

Figure 1.1: Digital Vortex: Digital Disruption by Industry (Global Center for Digital Business Transformation, 2015)

In the South African context, new digital-first banks (such as Discovery Bank, TymeBank and BankZero) and a slew of product- or segment-focused offerings from digital-only fintechs (such as Yoco, Jumo and Naked) have entered the market, encouraged by a friendly regulatory environment promoted by the local banking regulator, the South African Reserve Bank (SARB) (PwC, 2017; PwC, 2018). The SARB is noted as a progressive regulator, having set up a fintech unit and regulatory sandboxes to aide collaboration and

digital advancement in the industry (PwC, 2018; EFMA, 2021). This existential threat of disruption has spurred the pre-digital traditional banks (Absa, Capitec, FirstRand, Nedbank, and Standard Bank) to invest in large-scale multi-billion-rand digital transformation programmes, typified by the implementation of emerging technologies to evolve or replace legacy systems, firming-up cyber and IT resilience, and digitising front and back-office operations (PwC, 2017; Modiba, 2020). However, while there has been progress and an increase in pace due to COVID-19, the overall rate of change has been slow and pre-digital traditional banks and other financial services companies remain vulnerable to their agile digital competitors who are able to launch new offerings and features more easily and quickly to the market (PwC, 2017; PwC, 2018; Modiba, 2020).

To fully realise the return on their ITC investments, business leaders should be reminded that digital transformation is not merely technology-centric but represents an organisational change process of continuous adaptation and improvement where all employees are adopting technology and finding new ways to use technology to build innovation into products, services and business processes (Westerman *et al.*, 2014; Kane *et al.*, 2019; Machado *et al.*, 2021; Trenerry *et al.*; 2021; Kraus *et al.*, 2022). This modified definition implies the importance of considering the human dimension of the digital transformation process and underscores that without adoption by employees, changes are unlikely to be successful or deliver the desired outcomes. This also implies that the threat of disruption is not just an external phenomenon but can come from within a business as well. Reports indicate that 70% of digital transformation initiatives fail, with employees' resistance to change consistently cited as one of the primary reasons (McKinsey, 2016; BCG, 2020). Delays or resistance to change are likely to be costly, impacting competitiveness and performance (Prosci, 2022; SHRM, 2022). Change is difficult, especially for employees who have had success with certain ways of working in the past and who may be reluctant to change those ways of working for the future (Kane *et al.*, 2019; Kraus *et al.*, 2022), which is descriptive of employees typically found in pre-digital financial services businesses such as traditional banks (Selimovic, 2021). However, a directed and deliberate change management approach may help with the transition. Research shows that organisations with excellent change management practices are six times more likely to achieve project objectives, five times more likely to stay on or ahead of schedule and two times more likely to stay on or under budget (Prosci, 2022). Change efforts may also be improved with an understanding of the factors influencing employees (Veiga *et al.*,

2014; Ahmed *et al.*, 2019; Machado *et al.*, 2021; Selimovic, 2021; Trenerry *et al.*, 2021; Kraus *et al.*, 2022).

1.3 Research problem

Traditional South African banks and financial services companies have invested heavily in their digital transformation programmes (PwC, 2017; Modiba, 2020), and this trend is likely to accelerate into the post-COVID-19 era (Business Wire 2021). Despite the significant expenditure, however, the rate of change driven by these investments has been slow, and banks have yet to realise the full benefit. Cost-to-income ratios have not reached the expected levels for long-term competitiveness, and speed to market is sub-par when compared to digital-first banks and even more disappointing compared to their fintech rivals (PwC, 2017; PwC 2018). The challenge for businesses is not going to get any easier. Amankwah-Amoah *et al.* (2021) put forward a classification of post-COVID-19 barriers to digitalisation where they point out that traditional organisations must abandon long-standing procedures and routines before new, innovative routines can be adopted. This can be difficult for employees in pre-digital businesses such as banks and can impede complete digital transformation (Selimovic, 2021). Delays or resistance to change are likely to be costly, having an impact on the competitiveness and performance of the business (Westerman *et al.*, 2014; PwC, 2018; Trenerry *et al.*, 2021; Kraus, 2022). More than just being a cost burden, Kane *et al.* (2019) further alarmingly emphasises that "Technological advances that people don't widely adopt pose potential strategic vulnerabilities in the future if a competitor figures out how to capitalize on them first." (p. 13). It is evident that the digital transformation of businesses is in part dependant on the adoption of digital technology by its employees (Westerman *et al.*, 2014; Kane *et al.*, 2019; Machado *et al.*, 2021; Selimovic, 2021; Trenerry *et al.*, 2021; Kraus *et al.*, 2022).

While there has been progress in digital transformation programmes in South African banks, the pace has been slow, and the full return on investment is yet to be realised (PwC, 2017; PwC, 2018; Modiba, 2020). There is an opportunity for academia to help business leaders improve digital maturity and close the gap between actual and expected benefits, especially in the South African financial services context, where a nuanced understanding of digital transformation is yet to be fully explored (Modiba, 2020).

Globally, early research on digital transformation was largely focused on IT-enabled change, and recent studies and reviews focused on the business and strategic levels;

however, there has been only modest integration of employee-related factors (Trenerry *et al.*, 2021; Kraus *et al.*, 2022). Some studies, which focused on the factors influencing the digital adoption of employees, have been conducted (Ahmed *et al.*, 2019; Machado *et al.*, 2021; Selimovic, 2021; Trenerry *et al.*, 2021); however, research remains limited in the South African context. Therefore, this study aims to explore the factors influencing the adoption of digital technology by employees at a South African Bank. It will do this by considering the interplay between employees and digital adoption. In so doing, this study joins the discourse on the micro-level understanding of digital transformation and contributes to the existing literature focused on employee-related factors by providing a country and industry perspective. The study also discusses the role of change management in accelerating digital adoption, aiming to help change management practitioners and business leaders accelerate the pace of digital transformation in their organisations.

1.4 Research questions

1. RQ 1: What are the factors that influence digital adoption by employees in a South African bank?

2. RQ 2: How can change management influence employees to accelerate the adoption of digital technology?

1.5 Rationale

Traditional South African banks and financial services companies are compelled to invest significantly in digital transformation programmes to remain competitive (PwC, 2017; PwC, 2018; Modiba, 2020). While there is evidence of some progress, the pace of change has been slow (PwC, 2018; Modiba, 2020), and the risk of failure remains high (McKinsey, 2016; BCG, 2020). Research suggests that employee adoption is a key factor in the success of digital transformation programmes (Westerman *et al.*, 2014; Kane *et al.*, 2019; Machado *et al.*, 2021; Selimovic, 2021; Trenerry *et al.*, 2021). While some recent studies have focused on employee-centric digital adoption (Ahmed *et al.*, 2019; Machado *et al.*, 2021; Selimovic, 2021), research is limited when compared to technology, business, and

strategy-related change (Trenerry *et al.*, 2021; Kraus *et al.*, 2022). The research deficit is exacerbated when considering digital transformation in the South African financial services context, which lacks a sufficiently nuanced view (Modiba, 2020). This research has the potential to add both theoretical and practical value.

This study aims to contribute to the extant literature on digital transformation by exploring the factors influencing digital adoption by employees at a South African bank, thereby providing a country and industry perspective on digital transformation at the often-overlooked individual level. The study also considers the role of change management as a mechanism to accelerate digital adoption, thereby contributing both to change management practitioners and business leaders concerned with the pace of digital transformation in their organisations

From a theoretical standpoint, this study will contribute to digital transformation literature by adding country- and industry-specific findings to the pool of international research. Specifically, it will focus on the often-overlooked human perspective of digital transformation (Modiba, 2020; Trenerry, 2021; Kraus, 2022) by exploring the factors influencing digital adoption by employees at a South African bank, the relatedness of change management and employee digital adoption, and how change management can help to accelerate the adoption of digital technology by employees.

The study may be of value to business leaders in several ways. First, it provides a review of the evolution of business transformation frameworks with which business leaders can assess or plan their own business transformation programmes. Second, the discussion on change management in this paper is aimed at helping business leaders direct their change management time and resources towards accelerating digital adoption by employees, potentially helping to get a better return on their digital transformation investments (Westerman, 2014; Prosci, 2022). Finally, it is hoped that the insights and reflections that yield from this study add to the digital transformation competency of business leaders, which is consistently cited as an important factor in the success of digital transformation programmes (Westerman *et al.*, 2014; Kane *et al.*, 2019; Modiba, 2020; Machado *et al.*, 2021; Selimovic, 2021; Trenerry *et al.*, 2021).

For change management practitioners, the study may help to inform both process and content by providing further insight into the factors that influence digital adoption so that approaches can be more tailored to the people within a context (Ahmed *et al*., 2019; Prosci,

2022). In addition, by exploring change management in the context of digital adoption, this study may inform certain practices within the field.

If business leaders and change management practitioners have a better understanding of the factors that influence digital adoption, employees may, in turn, benefit from this study by experiencing a digital transformation process that increases their levels of adoption and engagement (Ahmed *et al*., 2019; Selimovic, 2021; Prosci 2022).

1.6 Delimitations of the study

I. This study will be limited to the South African banking sector
II. This study will be limited to between 10 and 15 employees of one traditional South African bank
III. Employees will be identified within three groups: 1) Non-managerial employees, 2) Managers, and 3) Change practitioners

1.7 Definition of terms

Digital Transformation: for the purposes of this study, digital transformation represents a multi-factor organisational change process of continuous adaptation and improvement where all employees are adopting technology and finding new ways to use technology to build innovation into products, services, and business processes. (Westerman *et al.*, 2014; Kane et al., 2019; Machado et al., 2021; Trenerry et al., 2021; Kraus *et al.*, 2022).

Digital Adoption: Userlane (2022) describes digital adoption as the process through which an individual acquires the ability to fully master new technology and successfully carry out digital processes for specific purposes. Cavalcanti *et al.* (2022) provide a definition for individual digital adoption “as the degree to which disruptive and transformative technologies are adopted and/or accepted by individuals, whether employees, consumers, customers or citizens, after an

improvement event or development of a new product, process or innovation." (p. 3). This is a useful definition of digital adoption for the purposes of this study

Change Management: Change management is the discipline and process that guides how to prepare, equip, and support individuals to adopt change to drive organisational success and outcomes successfully (Prosci, 2022). SHRM (2022) concurs and describes change management as the systematic approach and application of knowledge, tools, and resources to deal with change. Both variations of the definition are suitable for the purposes of this study.

1.8 Assumptions

The following assumptions are made about this study.

It is assumed that there are discernible factors that influence digital adoption by employees in a South African bank. It is further assumed that change management can influence employees to accelerate the adoption of digital technology. In addition, there is an assumption that participants will be agreeable to having a conversation and answering all questions honestly, reflecting the true nature of their experience. Finally, there is an assumption that participants will freely notify the researcher if they are uncomfortable answering any questions.

1.9 Chapter Outline

The paper is structured as follows. Chapter 1 provides an overview of the research problem, context, and objectives of the study. Chapter 2 provides a literature review of digital transformation, digital adoption and change management. Each topic is introduced, and the latest discourse is put forward before an appropriate theoretical framework for each topic is considered for the purposes of this study. Chapter 3 outlines the proposed research methodology, research instruments and the data collection methods that will be used to address this study's research objectives. Chapter 4 will present detailed findings of the research study, while chapter 5 will offer a discussion of the findings. Chapter 6 will provide a conclusion to this study, as well as citing limitations, recommendations and observations.

CHAPTER 2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

The previous chapter introduced the study and gave the background to the research problem and the context. This chapter presents a literature review of the key themes that will provide a foundation for the study.

First, the topics of digital transformation, digital adoption and change management will be explored in detail by reviewing the evolution and current discourse for each. Conceptual frameworks, theoretical frameworks, and models relevant to this study will be presented and reviewed.

Next, factors influencing employee adoption will be discussed in the context of the digital transformation and digital adoption models selected to identify gaps and opportunities for further research.

Finally, the chapter will explore the role of change management in the adoption of technology by employees.

The chapter draws to a close with an outline of the theoretical and conceptual frameworks guiding this study and concluding remarks on the literature reviewed for the purpose of the study.

2.2 Digital Transformation, Digital Adoption and Change Management

Digital transformation, digital adoption and change management are interrelated but distinct concepts. All are at their core processes which most businesses are currently undergoing to remain modern, relevant, and competitive (Digital-Adoption, 2021). Each term is described and discussed before their relatedness and usefulness to this study's research objectives are considered.

2.2.1 Digital Transformation

2.2.1.1 Background

Digital transformation is a thriving field in business and management research and is explored from multiple perspectives. Early research primarily focused on technology-enabled change, while recent studies have focused more on the business and strategic considerations of the digital transformation process (Trenerry *et al.*, 2021; Kraus *et al.*, 2022). A thematic mapping of digital transformation literature relating to business and management over the last ten years by Kraus *et al.* (2022) found that "the focus of digital transformation definitions varies from the adoption and use of new technologies; to improvements in processes, operations, customer relations, and performance; to the creation of new business models; all the way to possible outcomes and impacts on several actors and environments" (p. 2). The study identified five dominant themes in digital transformation literature: 1) structural changes and changes in value creation, 2) use of digital technologies, 3) dynamic capabilities, 4) strategic response, and 5) consumer behaviour (Kraus *et al.*, 2022). The increasing diversity of academic perspectives and contributions to literature reflects the ongoing evolution of the field and an enriched understanding of what digital transformation is and how to do it with a greater likelihood of success.

2.2.1.2 Theory

Despite important theoretical progress in understanding digital transformation, there has, however, been relatively limited integration of employee-related factors, with existing digital transformation models primarily focused on technology and strategy considerations (Ahmed *et al.*, 2019; Machado *et al.*, 2021; Selimovic, 2021; Trenerry *et al.*, 2021; Kraus *et al.*, 2022). None of the dominant themes identified in the Kraus et al. (2022) study related specifically to employees, with even the second most dominant theme in the literature, i.e., 'use of digital technologies', referring to the business-to-business context as opposed to an employee-related perspective.

While digital transformation literature focused on employee-related factors may not yet feature as dominant themes (Kraus *et al.*, 2022), various authors (e.g., Kaasinen *et al.*, 2018, Ahmed *et al.*, 2019, Molino *et al.*, 2020, Machado *et al.*, 2021, and Selimovic, 2021) have begun to contribute to the integration of these considerations. Trenerry *et al.* (2021) found that research on employee perceptions and attitudes relating to technological

change and digital disruption, in general, is growing, emphasising that these are “critical factors to take into account since attitudes to discrete technologies can be shaped by overall attitudes to broader technological transformations in society and their impact on jobs.” (pp. 6-7)

The impact of employee wellbeing on digital transformation is another dimension gaining research momentum. Kaasinen *et al.* (2018) developed a worker-centric design and evaluation framework for Industry 4.0 that integrates research on technology acceptance with employee-related wellbeing factors (i.e., job satisfaction, work engagement and job motivation). Drawing on previous models of wellbeing (e.g., Danna & Griffin, 1999), this broader framework (Figure 2.1) proposes antecedents at the individual, organisational and environmental levels that have immediate implications for a worker’s experience with the technology or procedure, which in turn impact work-related wellbeing and organisational outcomes (Kaasinen *et al.*, 2018). Although the study focused on an industrial factory setting with primarily blue-collar workers, the framework that emanated stands apart from previous models by including employee wellbeing and satisfaction, thereby representing a more inclusive framework for understanding digital transformation.

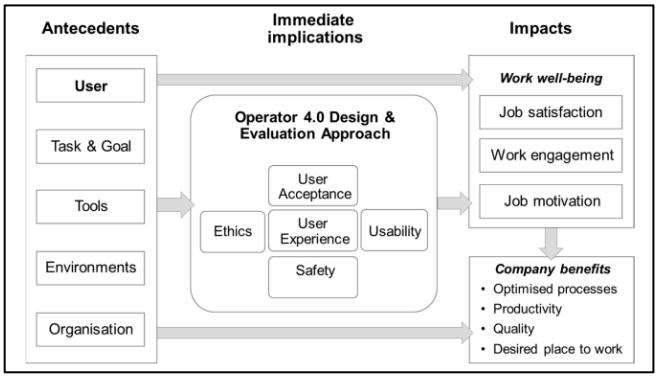

Figure 2.1: The Worker-Centric Design and Evaluation Framework for Operator 4.0 (Kaasinen et al., 2018)

Molino *et al.* (2020) used part of the Worker-Centric Design and Evaluation Framework for Operator 4.0 in another factory setting, this time with a combination of blue-collar and white-collar employees to investigate how certain personal and organisational antecedents (i.e., resilience, goal orientation, and opportunities for information and training) are related to technology acceptance, and in turn how this is associated with work engagement (Figure 2.2).

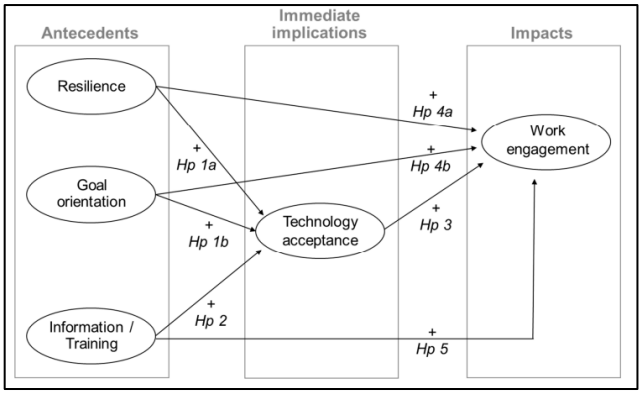

Figure 2.2: Hypothesised Model (Molino et al., 2020)

The study found a positive relationship between resilience (personal antecedent) and opportunities for information and training (organisational antecedent) and technology acceptance (immediate implication), which in turn showed a positive association with work engagement (impact) (Molino, 2020). This framework expands the body of knowledge on employee-related factors by exploring the concept of resilience.

Modiba (2020) put forward a framework (Figure 2.3) within which South African Financial Service Providers could go about their digital transformation.

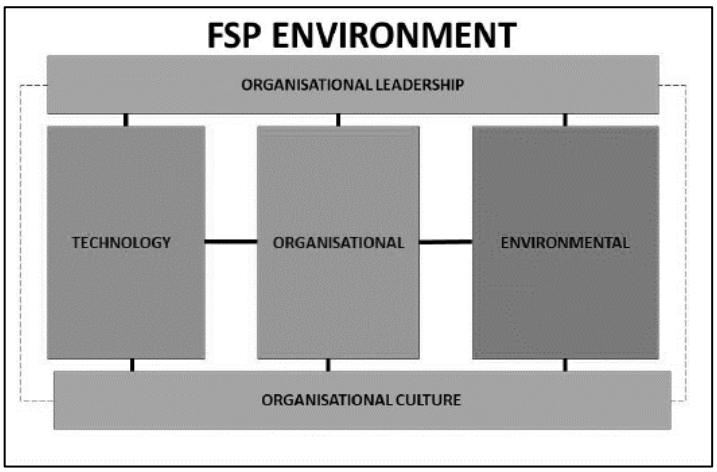

Figure 2.3: A Digital Transformation Framework for South African Financial Service Providers (Modiba, 2020)

The study used the IT Capability model, Resource Dependency theory, and the Technological, Organizational and Environmental (TOE) theory to understand how South African Financial Service Providers experience digital transformation. In so doing, the study found that digital transformation is either enabled or inhibited by existing IT capabilities and resource dependencies and concludes that IT capabilities

and resource dependencies will be realised within the financial services provider's technological, organisational and environmental contexts. The study provides valuable insight to help bridge theoretical, practical, methodological, and contextual knowledge gaps related to the South African context. It does, however, lack sufficient emphasis on employee-related or human factors that influence digital transformation.

More recently, a study by Trenerry *et al.* (2021) confirmed that multi-level factors are important when considering digital transformation. The study synthesised theory and empirical research from 2000 to 2020 into an overarching, multi-level theoretical framework that proposes factors at the individual, workgroup and organisational levels that have an influence and should be considered when planning for or embarking on digital transformation (Figure 2.4). The multi-level framework merges digital transformation models (e.g., Kaasinen *et al.*, 2018 and Molino *et al.*, 2020) with existing models of organisational behaviour and management (e.g., Robbins & Judge, 2019 and Wagner & Hollenbeck, 2010) to effectively bridge gaps in the predominant digital transformation research literature that has lacked integration of employee, workgroup, and organisational factors (Trenerry *et al.*, 2021).

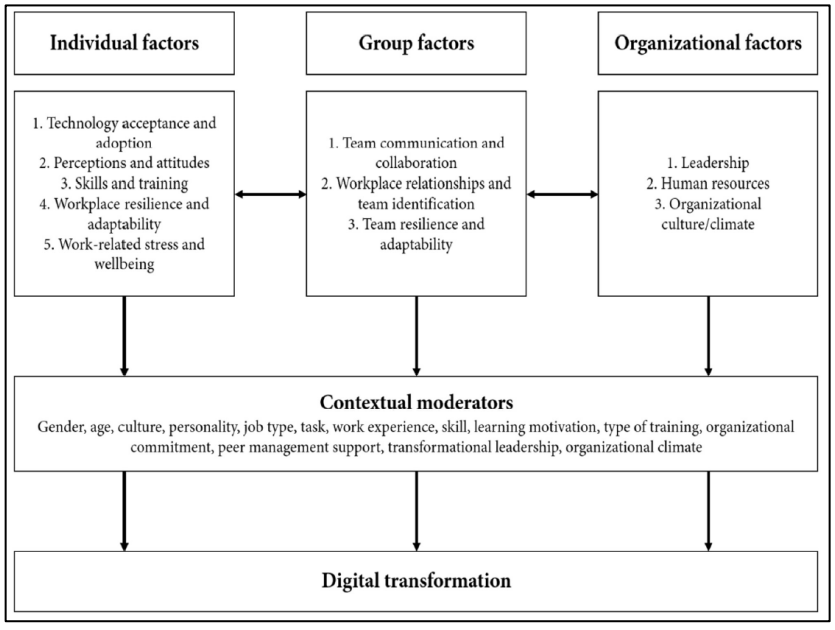

Figure 2.4: A multi-level theoretical framework for understanding workplace digital transformation (Trenerry et al., 2021)

The multi-level framework serves as a useful overarching theoretical model for the purposes of the current study, which will focus on factors influencing digital transformation at an employee or individual level.

At the individual level, Trenerry *et al.* (2021) propose five overarching factors related to effective digital transformation among employees: 1) technology acceptance and adoption, 2) perception and attitudes toward technology and digital transformation, 3) skills and training, 4) workplace resilience and adaptability, and 5) work-related wellbeing.

In line with the focus of this study, the next section will unpack the technology acceptance and adoption factor, framing it as digital adoption for the remainder of the study.

2.2.2 *Digital Adoption*

2.2.2.1 Background

Kane *et al.* (2019) put forward that people are the real key to digital transformation, adding that the employees can either frustrate or enable the process. Trenerry *et al.* (2021) concur and surmise that since the introduction of digital technology is often the basis of digital transformation in the workplace, “it is critical that acceptance and attitudes of employers toward new technologies foster its adoption and consequently facilitates digital transformation plans.” (p. 14).

Userlane (2022) describes digital adoption as the process through which an individual acquires the ability to fully master new technology and successfully carry out digital processes for specific purposes. Cavalcanti *et al.* (2022) provide a definition for individual digital adoption “as the degree to which disruptive and transformative technologies are adopted and/or accepted by individuals, whether employees, consumers, customers or citizens, after an improvement event or development of a new product, process or innovation.” (p. 3). .

2.2.2.2 Theory

As a field of study, the theoretical roots of digital adoption can be traced back to early research on information systems and social psychology, with several useful models having been developed to understand why individuals accept and adopt digital technology (Trenerry *et al.*, 2021 and Cavalcanti *et al.* 2022).

The Technology Acceptance Model (TAM) (Davis, 1989) is a popular and commonly referenced framework which posits that behavioural intention and attitudes predict technology usage in two key ways: 1) the perceived usefulness of technology, i.e., the degree to which an individual believes that a technology will be useful, and 2) perceived ease-of-use, i.e., the degree to which an individual believes that using a particular technology will be easy to use. TAM has subsequently been extended (TAM2) to include subjective norms and system-specific use of technology. TAM2 puts forward that individuals' mental assessment of the match between important goals at work and the consequences of performing job tasks using the system serves as a basis for forming perceptions regarding the usefulness of the system (Venkatesh and Davis, 2000).

Venkatesh *et al.* (2003) proposed the Unified Theory of Acceptance and Use of Technology (UTAUT) that merged existing models with motivation, social cognitive theory, and diffusion of innovations theory (Molino, 2020). The UTAUT puts forward four key factors (performance expectancy, effort expectancy, social influence, and facilitating conditions) and four moderators (age, gender, experience, and voluntariness) that predict technology adoption (Venkatesh *et al.*, 2003).

UTAUT was extended to UTAUT2 to study the acceptance and use of technology in a consumer context (Venkatesh *et al.*, 2012). UTAUT2 incorporates three constructs into UTAUT (hedonic motivation, price value, and habit) and identifies four individual differences (age, gender, experience, and voluntariness) that moderate the effect that these constructs have on behavioural intention and technology use. In general, UTAUT2 has been found to predict circa 70 percent of variation in behavioural intention and approximately 50 percent in technology use (Trenerry *et al.*, 2021; Cavalcanti *et al.*, 2022). Although UTAUT2 has been validated in various contexts and settings, it is not without criticism. Factors such as the use of generic moderators, limited research in workplace settings, and varying results among settings are cited as potential shortcomings of the model (Trenerry *et al.*, 2021). Furthermore, gaps were identified in the literature on individual adoption, manifesting in various inconsistencies in findings which, in some cases, contradict conclusions of main adoption models, such as TAM and UTAUT, attributed to the incomplete application of theoretical models, the use of a small sample, or the disregard of variations arising from the different contexts or specificities of the investigated technology (Blut *et al.*, 2021).

Cavalcanti *et al.* (2022) noted the contradictions and performed a weight and meta-analysis through the lens of adoption theory (Venkatesh *et al.*, 2003) to help resolve inconsistencies in previous research, clarify the main digital transformation predictors, and to answer why people accept digital technologies. The authors consolidated theoretical models and empirical data from academic publications between 2014 and 2021 related to individual digital adoption. Through systematisation of the empirical results, the authors were able to assess and select the central relationships between variables, making it possible to see the predictive power of variables and indicate the most relevant factors for the adoption. The study found 46 statistically significant relationships between dependent and independent variables, bringing accurate and reliable conclusions to the theory of technology adoption. One such conclusion is that of the six dependent constructs identified in the study, four are included in TAM and UTAUT (i.e., usefulness, ease of use, behavioural intentions, and use behaviour) (Cavalcanti *et al.*, 2022). In this way, the study empirically validates the primary relationships of TAM, UTAUT, and UTAUT2 models for individual adoption of digital technology, helping to harmonise inconsistencies pointed out in the existing literature.

The study also concluded that two additional constructs not found in the main models of TAM and UTAUT emerge as significant dependent variables: 1) attitude, emanating from the Theory of Reasoned Action (Ajzen, 2011), and 2) satisfaction, originating from the Information System Success model (DeLone & McLean, 1992). Based on these findings, the authors put forward a UTAUT model extension, with new consolidated constructs, that serves as a specific and reliable technology acceptance model for future research on digital transformation individual adoption (Figure 2.5).

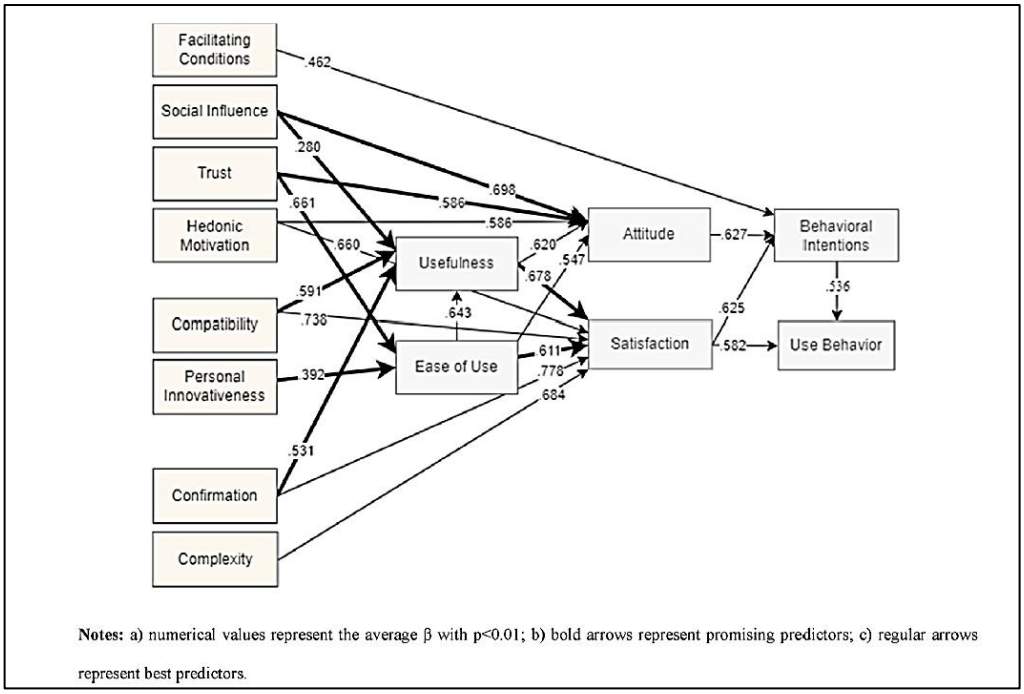

Figure 2.5: Proposed model considering different outcomes of UTAUT as a result of weight and meta-analysis (Cavalcanti et al., 2022)

The construction of the presented model followed the application of two criteria: 1) statistically significant relationships through the meta-analysis and 2) only relationships classified as best and promising predictors, according to a weight analysis (Cavalcanti *et al.*, 2022). Furthermore, given its focus on individual digital adoption and its empirically proven reliability, the extended UTAUT model (Cavalcanti *et al.*, 2022) serves as a suitable theoretical framework for digital adoption within which to anchor the current study.

2.2.3 Change Management

2.2.3.1 Background

Change management is a popular field of study being explored from multiple perspectives and within several disciplines and contexts. Hiatt and Creasey (2012) note that change management is, at its core, informed by ideas emanating from the fields of engineering, psychology, and business. Initially, research in the field was focused on ICT-related change, for example, Information Technology Infrastructure Library (ITIL), which is a set of ICT service management best practices that provides a framework for ICT professionals to implement system changes efficiently (Hiatt & Creasey, 2012; Digit-Adoption, 2022). More recently, however, there has been a leaning towards research related to

organisational change, which broadly relates to how businesses move from the current or as-is state to the desired or to-be state (Hiatt & Creasey, 2012; Galli, 2018; Bekmukhambetova, 2021).

From an organisational perspective, change management is an essential and ongoing process for businesses seeking to survive and thrive in the modern economy (Westerman *et al.*, 2014; Kane *et al.*, 2019; McKinsey, 2016; BCG, 2020). Within the field of organisational change, Hiatt and Creasey (2012) point out the two views of change management as 1) organisational change management (top-down, from the manager's perspective) and 2) individual change management (bottom-up, from the employee's perspective). The current study aligns with the latter view of change management, and with this lens, further research will be considered.

There is growing consensus that employees are critical to the organisational change process (Galli, 2018; Bekmukhambetova, 2021), and the goal of change management in this regard is to enable them to engage, adopt and use the change effectively within business (Hiatt & Creasey, 2012; Westerman *et al.*, 2014; Kane *et al.*, 2019; Prosci, 2022; SHRM, 2022). Despite consensus on the importance of change management and the role of employees, there is also agreement that businesses are generally slow to respond to change, and when they do respond, companies find it difficult to implement those changes (Galli, 2018; Bekmukhambetova, 2021; Kraus *et al.*, 2022; Trenerry *et al.*, 2022). A report from McKinsey (2016) shows that 70% of business transformation projects fail, with 39% of the failures explained by employee resistance to changes, 33% by the lack of support for changes from the managers, and only 14% by inadequate resources or other reasons. Delays or resistance to change are likely to be costly, having an impact on competitiveness and performance (Westerman *et al.*, 2014; PwC, 2018; Trenerry *et al.*, 2021; Kraus *et al.*, 2022) and potentially posing a strategic disadvantage that may be detrimental or even terminal for businesses (Kane *et al.,* 2019).

2.2.3.1 Theory

The case for organisational change is clear, although there is no unified theory or model for change management. Instead, a variety of change management models exist, each with potential applicability within a given context. From a comparative analysis of the

literature, three commonly used and tested models can be identified: 1) Lewin's Change Model, 2) Kotter's 8-step change model, and 3) Prosci's ADKAR model (Gallie, 2018; Bekmukhambetova, 2021). Each model is briefly outlined below.

Lewin's Change Model: This model is grounded in Kurt Lewin's work on force field analysis (Lewin, 1951), which describes the driving forces (those factors that push the subject towards change) and resistant forces (those factors that pull the subject towards the current state) that act on a subject during change. Lewin developed the change model (Figure 2.6) circa the 1950s, and it is credited as one of the first to focus on understanding organisational change (Galli, 2018; Bekmukhambetova, 2021).

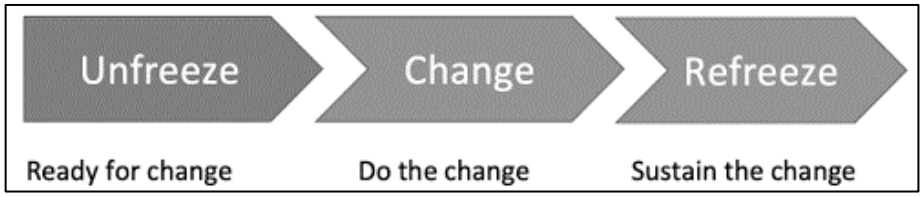

Figure 2.6: Lewin's Change Model (adapted from Gallie, 2018)

Lewin's model refers to a three-stage process of change:

1) Unfreeze: This stage involves defining the current state, surfacing the driving and resisting forces, and creating a vision for the desired state.
2) Change: This stage is action orientated and is about moving to the desired state through planned actions to change the behaviour of employees.
3) Refreeze: This stage is concerned with embedding the new state through mechanisms such as policy, standards, measurement, and recognition.

Kotter's 8-Step Change Model: Kotter's (1996) change model (Figure 2.7) puts forward eight critical steps that will lead to successful change.

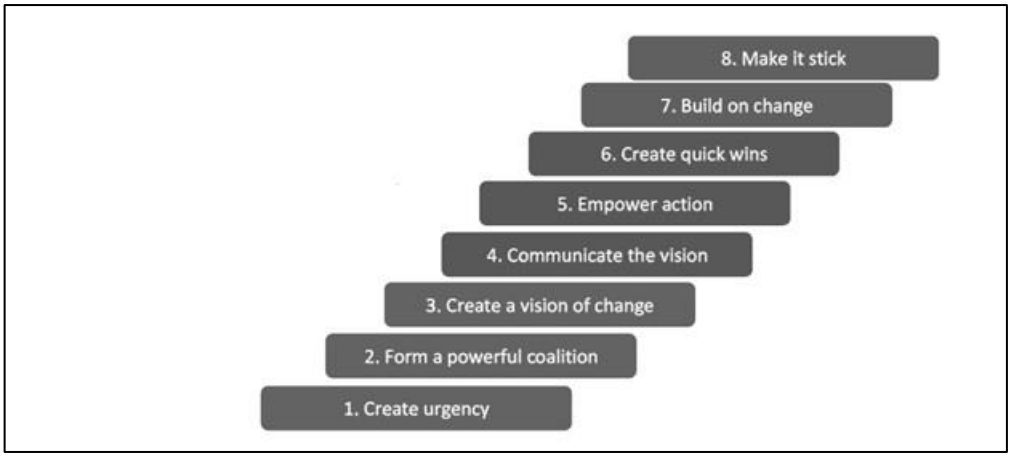

Figure 2.7: Kotter's 8-Step Change Model (Bekmukhambetova, 2022)

Kotter's model expanded on Lewin's Change Model, emphasising the importance of a holistic approach to change and fortifying the importance of leadership throughout the change management process (Galli, 2018; Bekmukhambetova, 2021). Steps 1-3 relate to engaging and enabling the organisation, steps 4-6 focus on creating a climate for change, while steps 7-8 are directed at implementing and sustaining the change.

ADKAR: The Awareness, Desire, Knowledge, Ability, Reinforcement (ADKAR) model (Figure 2.8) was introduced by Hiatt (2006) and remained the primary change model advocated by Prosci (Prosci, 2022).

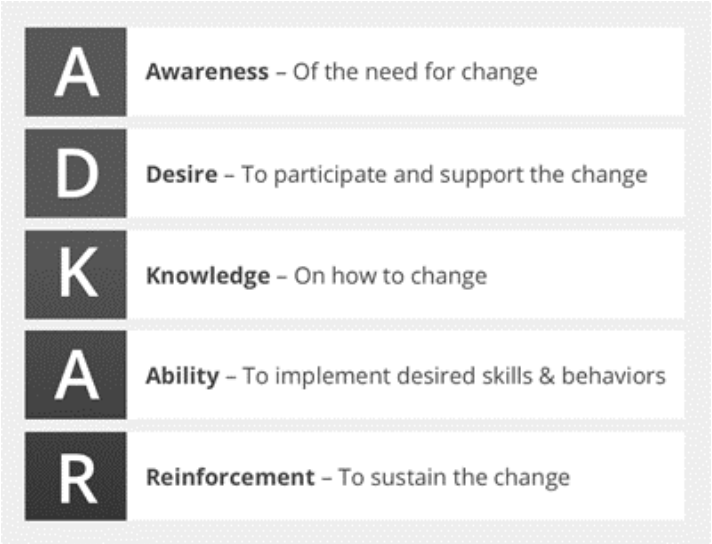

Figure 2.8: ADKAR Change Model (Hiatt, 2006)

According to Prosci (2022), Awareness in the ADKAR model refers to whether the person undergoing the change understands the nature of the change, why the change is necessary, and what the risks are of not changing. Answering the question of "what's in it

for me?" is central to this phase, as is sharing information related to the internal and external drivers of the change.

The Desire stage involves taking steps to influence individuals to support and want to be part of the change (Prosci, 2022). It requires change practitioners to translate the reasons for change into personal and organisational motivating factors. This phase can be difficult to achieve since it is a result of the personal choice that the individual makes.

The Knowledge stage encompasses the information, training and education required for individuals to know how to change (Prosci, 2022). It includes aspects such as behaviour and skills, processes, tools, systems, and roles and responsibilities.

Ability is the fourth phase of the ADKAR model and marks the shift from knowledge to action (Prosci, 2022). During this stage, change practitioners provide individuals with time, resources and coaching to develop new skills and behaviours. Individuals then apply the skills and demonstrate new behaviours, signalling movement towards the desired future state.

The final stage in the ADKAR model refers to Reinforcement. During this stage, internal and external factors are addressed to sustain the change. External factors may include deliberate actions such as recognition, rewards and celebrations associated with achieving the change. Internal factors, which are more difficult to achieve, include an individual's personal satisfaction with their achievement.

The ADKAR model differs from the previous models by focusing on people's change adaptation as opposed to the change itself. The model advocates for people to be the subject of change and helps to infuse the concepts of motivation and desire into the change management taxonomy (Gallie, 2018). In addition, the model is noted as supporting a more rapid pace of change within various organisational contexts (Bekmukhambetova, 2022).

Interestingly, Dakalo (2020) points out that all the elements of Kotter's 8-step model and the ADKAR model can be contained in the three stages of Lewin's model as follows:

1) Unfreezing includes steps 1-4 in Kotter's model and the 'Awareness', 'Desire' and 'Knowledge' aspects of the ADKAR model.
2) Change includes steps 5-7 in Kotter's model and 'Ability' in the ADKAR model.

3) Refreezing accommodates step 8 in Kotter's model and 'Reinforcement' in the ADKAR model.

From the literature reviewed, Kotter's model is seen to be more focused on the management level, while Lewin's model and the ADKAR model are more focused on the individuals within the organisation (Gallie, 2018; Dakalo, 2020). Kotter's model and Lewin's model are found to be better suited for large-scale or organisation-wide changes rather than incremental or small-scale changes that are done in part of an organisation (Dakalo, 2020). Another criticism of both Lewin's and Kotter's models is that they focus on top-down change driven from the management perspective (Bekmukhambetova, 2022). It is also argued that Lewin's theory focused more on the magnitude of change while ignoring the speed of change (Gallie, 2018), which is not in keeping with the theme of acceleration put forward in the current study. Of the three popular and tested change models reviewed, ADKAR has been identified as the most suitable change management model to underpin the current study, given its orientation towards individual-level change and its affinity for accelerating the pace of change regardless of the size or complexity of the change.

2.3 Factors that influence digital adoption

This section will further discuss the factors influencing digital adoption by individuals before drawing attention to employees within the banking sector.

2.3.1 Factors influencing individual digital adoption

In seeking to understand the factors influencing individual digital adoption, it is important to frame adoption within the overarching phenomenon of digital transformation. Trenerry *et al.* (2021) put forward a multi-level theoretical framework for understanding workplace digital transformation by integrating factors at the individual, group, and organisational levels. At the individual level, the authors propose five overarching factors related to effective digital transformation among employees: 1) digital adoption, 2) perception and attitudes toward technology and digital transformation, 3) skills and training, 4) workplace resilience and adaptability, and 5) work-related wellbeing. While these factors relate specifically to the individual level, it is important to acknowledge that factors at the group and organisational levels may have a bearing on transformation by employees. The manner and extent to which the three levels affect one another are not yet well understood and present opportunities for further research (Trenerry *et al.*, 2021).

Focusing on the individual level and the digital adoption factor, Cavalcanti *et al.* (2022) put forward an extended UTAUT2 model based on statistically significant relationships (through a meta-analysis) and relationships classified as best and promising predictors (according to a weight analysis). The authors consolidated theoretical models and empirical data from previous publications across multiple industries and countries. The study identified 442 relations between independent and dependent variables, synthesised into 46 statistically relevant relationships. After further synthesis, the study finds that six factors account for the highest impact on adoption at the individual level. Table 1 highlights the six factors and brings forward the underlying theoretical models that underpin them.

Factor	Underlying Theory
Usefulness	TAM (Davis, 1989) UTAUT2 (Venkatesh et al., 2012)
Ease of use	
Behavioural intentions	
Use behaviour	
Attitude	Theory of Reasoned Action (Ajzen, 2011)
Satisfaction	Information System Success Model (DeLone and McLean, 1992)

Table 2.1: Factors influencing individual digital adoption (adapted from Cavalcanti et al., 2022)

2.3.2 Factors influencing employee adoption in banking.

Research on digital adoption within the banking sector has traditionally focused on the external environment, seeking to understand how customers adopt new technology deployed by banks (Santini *et al.*, 2019; Trenerry *et al.*, 2021; Cavalcanti *et al*., 2022). There is scant research focused on understanding the factors influencing digital adoption by employees within banks, which represents an opportunity for further investigation. Where research does exist, the findings concur with the factors synthesised by Cavalcanti *et al.* (2022). Some noteworthy studies related to employee digital adoption in the banking context are discussed next.

Nath *et al.* (2013) conducted a study among bank employees from the public and private sector banks in India to understand what factors influence technology adoption using TAM

(Davis, 1989). The study suggests that TAM variables positively influence the intention and usage behaviour through perceived usefulness and perceived ease of use. Furthermore, it was found that perceived ease of use significantly influences perceived usefulness, which, in turn, has a significant effect on behavioural intention and usage behaviour. In addition, it emerged that social influence enhances perceived usefulness, and computer self-efficacy and technology facility influence the perceived ease of use.

Veiga *et al.* (2019) aimed to understand how adopters' pre-adoption expectations, enacted over time, can influence their post-adoption proficiency. The authors underpinned their study with the UTAUT (Venkatesh *et al.*, 2003) and analysed time-lagged survey data from 153 financial analysts who were required to adopt new software at a multinational bank. At the individual level, it was found that adopters who hold pre-adoption expectations reflecting greater internal and external motives to adopt the system, as well as systematically integrate it into their work routines, develop higher levels of proficiency post-adoption. In addition, it was found that greater organisational support enhanced the impact of adopters' expectations on proficiency, except when their actual use was low, in which case organisational support had an adverse effect.

Selimovic *et al.* (2021) aimed to investigate whether employee involvement, well-being and support of digital work foster the digital transformation of the workplace, focusing on employees' expectations, behavioural intentions, and psychological needs. The study surveyed 161 employees in financial institutions, including banks and insurance companies in Bosnia and Herzegovina. It was found that interpersonal relatedness in a digital work environment significantly influences employees' performance and well-being, which, in turn, increases employees' intentions to support digital transformation.

2.3.3 Proposition 1: There are factors that influence digital adoption by employees in a South African bank.

The literature review indicates that there are empirically reliable factors that influence individuals to adopt digital technology. While research in the field is nascent, it remains an understudied domain, particularly as it relates to employees in the banking sector. This study suggests that there are factors that influence digital adoption by employees in a South African bank.

2.4 How can change management influence employees to adopt digital technology?

This section will put forward a discussion on the relatedness of key phenomena related to the study.

2.4.1 The relatedness of change management, digital adoption, and digital transformation

The literature review shows that digital transformation, digital adoption, and change management are distinct but interrelated concepts. All may be described as organisational processes which most businesses are currently undergoing to remain modern, relevant, and competitive (Digital-Adoption, 2021). Digital transformation is an organisational change process that requires a major change effort, as employees need to understand and use digital technologies (Westerman *et al.*, 2014; Kane *et al.*, 2019; Machado *et al.*, 2021; Kraus *et al.*, 2022). Digital adoption by employees is critical to the organisational change process, and the goal of change management in this regard is to enable them to engage, adopt and use the change effectively within business (Hiatt & Creasey, 2012; Westerman *et al.*, 2014; Kane *et al.*, 2019; Prosci, 2022; SHRM, 2022). Digital adoption is described as a change and learning mechanism that allows individuals to understand the potential of digital resources, accept and utilise such resources to achieve their goals, and leverage each technology to drive innovation and optimise processes (Userlane, 2022).

The phenomena appear to be related from an academic interest perspective. Following a thematic mapping of digital transformation literature relating to business and management, Kraus *et al.* (2022) found that change management featured on the list of the most frequently mentioned keywords in articles related to digital transformation since 2018. The relatedness seems to also extend to theoretical models. The multi-level digital transformation framework (Trenerry *et al.*, 2021) accounts for factors influencing transformation at the individual, group, and organisational levels. Within the individual level, digital adoption and technology acceptance are noted amongst other key factors. The extended UTAUT digital adoption model (Cavalcanti *et al*., 2022) accounts for human factors influencing adoption, including intentions, attitudes, perceptions, behaviours, and satisfaction. Finally, the ADKAR change model (Hiatt, 2006) focuses on individual change as the mechanism to drive organisational change and accounts for human factors throughout the change management process.

2.4.2 Change management and the factors that influence employee adoption of digital technology

Much of the research linking change management and digital adoption has focused on preparing the employee for change. Lai and Ong (2010) posit that managers should assess employee readiness to embrace e-business carefully since the changes involved in e-business implementation will often trigger significant resistance to change when employees are comfortable with the status quo, they do not understand why change is desirable, and when they doubt the company's ability to achieve the desired change. The authors conceptualised the employee readiness for e-business (EREB) model for measuring employee readiness for digital adoption (Figure 2.9) grounded in technology adoption and change theory.

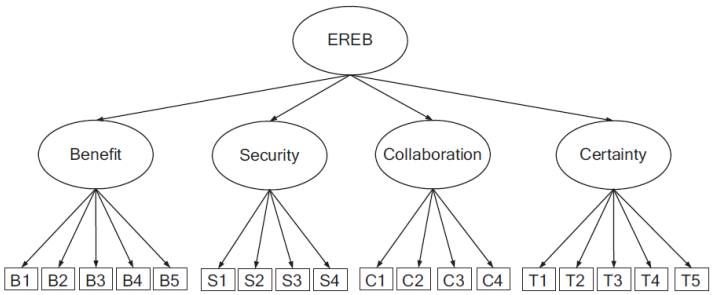

Figure 2.9: EREB Model (Lai & Ong, 2010)

The model identifies four intrinsic motivating factors required to understand employee readiness better: 1) Benefit, 2) Security, 3) Collaboration, and 4) Certainty. Ahmed *et al.* (2019) combined TAM (Davis, 1989) and EREB (Lai and Ong, 2010) in their cross-sectional study to collect data from 331 employees of 28 well-established small and medium-sized e-businesses in the United Kingdom. The outcomes show that the four dimensions of EREB explain the 58.2% variance in perceived ease of use and 50.2% in perceived usefulness. Together, perceived usefulness and perceived ease of use explain the 51.8% variance in intention to use while fully mediating the relationship between higher-order EREB construct and intention to use digital technology.

Other links between change management can be found in the literature. For example, Nath *et al.* (2013) found that the social influence of superiors was the prominent determinant of the perceived usefulness of technology, highlighting the role of managers as effective communicators, especially in conveying the benefits of using new technology and, in turn, achieving organisational goals. Dakalo (2020) aimed to investigate and evaluate a change

management process that would enable technology adoption and value realisation. The study found that the best practices an organisation needs to follow are based on ADKAR and Lewin's model, specifically focusing on the end-users. More recently, Selimovic *et al.* (2021) argued that expectations, behavioural intentions, and psychological needs, which are often neglected in pre-digital traditional businesses, represent critical points in lowering the resistance to accepting digital technology.

2.4.3 Proposition 2: Change management can influence employees to accelerate the adoption of digital technology

The literature review shows that change management can influence employees to adopt digital technology, albeit focused on the early stages of the change management process. This study puts forward that change management can be used as a mechanism to accelerate the adoption of digital technology by employees.

2.5 ANALYTICAL FRAMEWORK

This section outlines the analytical framework of the study. It provides an integrated overview by first discussing the theoretical and empirical concepts underpinning the study before putting forward a conceptual framework within which the research will be guided.

2.5.1 Theoretical Framework

The theoretical framework for this study is derived from theories in the literature that have already been tested or validated by others and are considered to be generally acceptable. From the literature review, it is observed that digital adoption by employees is essential for businesses to transform digitally. This is confirmed by the model selected for this study developed by Trenerry et al. (2021) selected for this study which found that multi-level factors are important when considering digital transformation and propose five overarching factors related to effective digital transformation among employees, including technology acceptance and adoption. The extended UTAUT model put forward by Cavalcanti et al. (2022) has been selected for this study as it highlights several empirically validated human factors that influence technology acceptance and adoption by individuals including intentions, attitude, perception, behaviours and satisfaction. These human factors are

accounted for in the Prosci (2022) ADKAR change management model selected for this study, which is orientated towards individual-level change and has been found to have an affinity for accelerating the pace of change regardless of the size or complexity of the change. When considering all three models above, what is identified is a nesting of interrelated but distinct theoretical frameworks for the phenomena of digital transformation, digital adoption and change management that will underpin and guide this study (Figure 2.10).

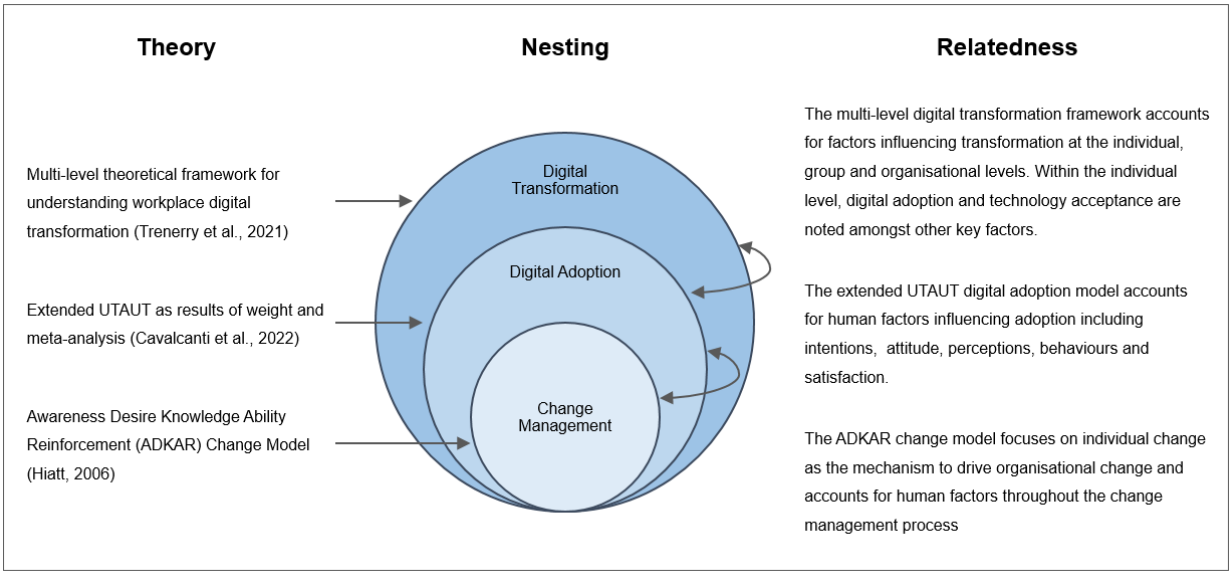

Figure 2.10: Theoretical framework for this study (Developed by Author)

The selected theories assume an individual or employee perspective for each of the phenomena under consideration, which aligns with the viewpoint of this study. In addition, each theory is applicable to the organisational or business context within which this study intends to focus.

2.5.2 Conceptual Framework

This study aims to explore the factors influencing the adoption of digital technology by employees at a South African Bank. It will do this by considering the interplay between employees, digital adoption and change management. Figure 2.11 illustrates the conceptual framework for the study.

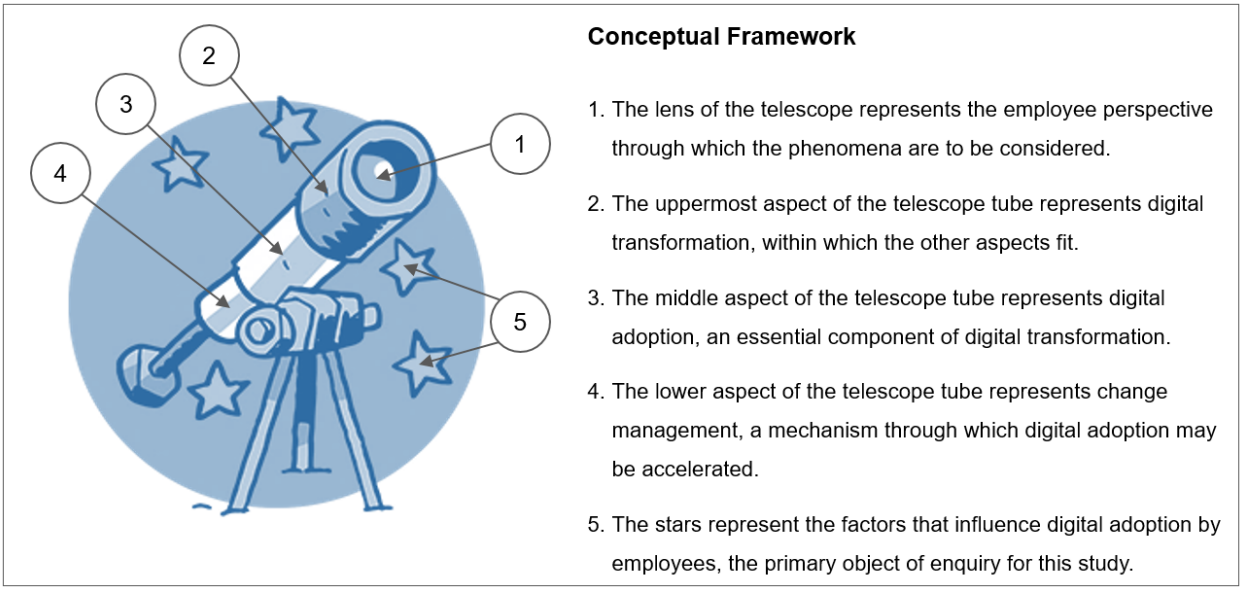

Figure 2.11: Conceptual framework for study (Developed by Author)

This study will consider the factors that influence digital adoption by employees, the relatedness of change management and digital adoption, and how change management may influence employees to accelerate the adoption of digital technology, thereby helping to accelerate digital transformation within the bank.

2.6 Conclusion of Literature Review

Digital transformation, digital adoption and change management are distinct but interrelated concepts. Each concept continues to evolve as a field of study, with more emphasis on understanding the individual perspective in recent years. This has yielded useful theoretical models within which to ground this study. Furthermore, the phenomena seem to be interrelated in how they are defined, studied, and applied. Based on the literature review and the aim of this study, the following propositions are put forward:

2.6.1 Proposition 1: There are factors that influence digital adoption by employees in a South African bank.

2.6.2 Proposition 2: Change management can influence employees to accelerate the adoption of digital technology.

CHAPTER 3. RESEARCH METHODOLOGY

This chapter provides a detailed description of the research methodology employed in this study. The first section will outline the methodology and the paradigm guiding the study. Thereafter, the research design and data collection methods will be put forward. Finally, ethical considerations, as well as the validity, reliability, and limitations of the study, are discussed.

3.1 Research approach

Even though research on the individual perspective of digital transformation has been on the increase, the field of study remains disjointed, especially as it relates to digital adoption in the organisational context. Systematic research provides useful tools and techniques that bring potential answers to the surface and identify possible solutions to fragmented knowledge (Leedy & Ormrod, 2019). Blumberg *et al.* (2014) put forward that qualitative research utilises interpretive methods in describing, translating, and attempting to understand the meaning of phenomena. The authors add that a qualitative approach is exploratory in nature and allows researchers to understand how individuals' experiences are interpreted and what meaning is given to them. In addition, qualitative research aims to understand the individual's frame of reference, beliefs, and thoughts, making it more descriptive than predictive (Vanderstoep & Johnson, 2008). As this study aims to gain insights into the assumptions, beliefs and feelings related to digital adoption by employees, as experienced by the participants, a qualitative approach is the most appropriate for this study.

The qualitative research approach is characterised by flexible or unstructured methods to explore different descriptions of a situation or issue (Kumar, 2019). As a result, it is accepted that sample sizes are smaller, with fewer respondents being able to cover a range of topics or issues within a domain of enquiry. However, Morrow (2007) suggests that through the use of language (for example, through semi-structured interviews), researchers following a qualitative approach can get an in-depth view of the individual by understanding their experiences and perceptions, including associated meanings and feelings, which may not be otherwise observable or easily identifiable. Therefore, data analysis is based on individual narratives and accounts to identify themes (Kumar, 2019).

In keeping with the individual perspective advanced in this study, the aim of qualitative research is to understand the world of lived experiences from the point of view of those who live it (Schwandt, 1994). By seeking to explore the factors influencing digital adoption by employees within a South African bank, the study is further placed within the constructivist paradigm where reality is constructed in the mind of the individual (Ponterotto, 2005). Leavy (2017) adds that within the constructivist paradigm, it is assumed that individuals construct meaning as they engage with the world through their interpretative process in assigning meaning to situations, events, gestures, and social interaction with others.

3.2 Research design

Using the descriptors offered by Blumberg *et al.* (2014), the purpose of this study is causal in nature as it seeks to understand what factors are influencing digital adoption by employees and how change management can accelerate digital adoption. In addition, this study can be described as exploratory given the open-ended nature of the research questions, tending towards loose structures to develop hypotheses or questions for further enquiry (Blumberg *et al.*, 2014). Considering that this research aims to investigate a contemporary phenomenon within its real-life context (Yin, 2003; Hartley, 2004), this study lends itself to a case study research approach. This study will follow a single case study design, with the case organisation being a pre-digital traditional South African bank. Although not always generalisable to populations or universes, the case study approach is valuable in generating hypotheses and building theory, considering that it aims to provide an analysis of the context and processes which illuminate the theoretical issues being studied (Hartley, 2004) and that its goal is analytical generalization and not statistical generalization (Yin, 2003).

3.3 Data collection methods

Yin (2003) identifies six possible sources of evidence for case studies: 1) documents, 2) archival records, 3) interviews, 4) direct observation, 5) participant observation, and 6) physical artefacts. The primary data collection method will be semi-structured interviews, commonly applied in qualitative research, as they provide freedom from structure and content (Kumar, 2019). The semi-structured interviews will be conducted within the case site by the researcher.

3.4 Population and sample

3.4.1 Population

The population for this study is employees of traditional banks in South Africa.

Case Site: The case organisation for this study is one traditional South African bank with a head office in Johannesburg and an extensive network of branches and regional offices around South Africa.

Within the case site, the following subsets of employees will be identified to form part of this study:

- Non-managerial Employees: the end-users who are required to adopt digital technology.
- Managers: the managers of teams wherein digital technology must be adopted.
- Change Practitioners: the specialists who assist employees and managers in ensuring digital technology is adopted.

3.4.2 Sample

A sample of 15 participants will be purposively sampled from the population to comprise the following subsets of employees:

- Non-managerial Employees: 5 interviews
- Managers: 5 interviews
- Change Practitioners: 5 interviews

These three distinct participant groups have been chosen for this study to explore if the each group provides similiar or different responses to the research questions under investigation relative to their role or level within the bank.

3.4.3 Sampling method

A purposive sampling strategy will be used for each population within the study. First, the researcher will obtain a staff listing with which the subsets of employees will be identified

based on role tile and job grade. Once the subsets are identified, a minimum of 5 individuals will be selected.

3.5 The research instruments

The research instrument for this study will be an interview guide consisting of open-ended questions. A separate interview guide has been developed for each employee subset:

- Non-managerial Employees: see Appendix A
- Managers: see Appendix B
- Change Practitioners: see Appendix C

3.6 Procedure for data collection

The researcher will approach the Human Resources department of the case organisation to attain a staff listing. The subsets of employees will be identified based on role titles and job grades. Once the subsets are identified, a minimum of six individuals will be selected from each subset. The research instrument will then be piloted with one individual from each subset so that the instrument can be refined as needed. After the refinement of the instrument, no less than five interviews per subset will be conducted. Initial contact will be made with the prospective participants through an email request (see Appendix D) explaining the research objective. If an objection is received from a prospective participant, then an alternate participant will be selected from the staff list. If no objection is received from the participant, a meeting invitation will be sent via Microsoft Outlook to secure a time for the interview. With the permission of the participants, the interview will be recorded for the purpose of data collection. The relevant interview schedule will be used to guide the interview. Data collection will take place during the interview via interview notes and after the interviews using the audio recording.

3.7 Data analysis strategies and interpretation

This study will follow a thematic analysis approach to analysing and interpreting data. Qualitative research aims to understand and explain these themes and patterns by using inductive reasoning through identifying and describing patterns and themes in narratives, observational data, and participants' responses. (Kumar, 2019; Leedy & Ormrod, 2019).

Clarke *et al.* (2015) add that thematic analysis is an interpretive process focused on identifying meaning and patterns across a data set. Braun & Clarke (2006) highlight the six phases to consider when approaching thematic analysis:

Phase 1: Familiarising oneself with the data

Phase 2: Generating initial codes

Phase 3: Searching for themes

Phase 4: Reviewing potential themes

Phase 5: Defining and naming themes

Phase 6: Producing the report

The above phases will be employed in this study.

3.8 Possible limitations and challenges of the study

The researcher is an employee of the organisation and, as such, acknowledges that their own outlook, motivations, and experiences may result in bias during the research process. The researcher will be aware of this and apply reflectivity to counteract this limitation.

Generalisability may be a limitation of the study, given that it is a case study of one organisation.

Although the thematic analysis data strategy can provide rich thematic data, it can lack depth and transparency, and the findings can be subjective due to the nature of the qualitative case study.

3.9 Quality Assurance

3.9.1 Transferability

According to Morse (2015), the extent to which the findings are applicable to other contexts or another population refers to external validity, known as transferability, within a qualitative perspective. To achieve transferability, the researcher will make use of purposive sampling. The study population is uniquely defined to provide insights into the research

questions. The intention is to conduct a minimum of five one-on-one, unstructured interviews with each population.

3.9.2 Credibility

The use of triangulation will be employed to establish credibility in this study. This is in line with the view from Leedy and Ormrod (2019), which suggests that the comparison of multiple data sources in search of common themes provided further credibility to the findings in qualitative research. The researcher aims to achieve this through unstructured interviews with the three populations in the case organisation. Pattern matching will also be used as an analytic tactic, which according to Yin (2003), is a useful way of addressing credibility. Furthermore, the researcher will apply reflexivity to heighten credibility. This will require self-reflection on the researcher's role within the study, personal background, personal experiences and biases which may influence the interpretation of the data (Creswell & Creswell, 2018).

3.9.3 Dependability

Dependability of qualitative findings is increasingly being used as a criterion to assess the quality of qualitative research (Hartley, 2004). Yilmaz (2013) adds that a study has dependability when the selection, justification, and application of the research approach are clearly explicated, and its effectiveness is appraised by the researcher. This study will follow Yin's (2003) suggestion to operationalise as many steps in the process as possible and to conduct the research as if it was to be audited.

3.10 Ethical considerations

This study will strictly adhere to the ethical principles of the University of Witwatersrand. Prior approval to conduct the research will be sought from the university's ethics committee, and the study will strictly follow the committee's guidelines. The anonymity of the respondents will be maintained. The following ethical principles will be applied in this study.

Autonomy: Participation is voluntary, and participants can withdraw at any time without penalty or reason. The questionnaire remained private, protecting the participants' privacy, and participation remained confidential. Once the answers have been analysed, the

information will not be used for other purposes. The decision of the participants will be respected by all means.

Beneficence: There are no specific benefits associated with or required for participation. Due to the nature of the interview, participants may gain indirect benefits by generating knowledge at a personal level and understanding the activities undertaken when implementing a new technology.

Non-maleficence: It should take approximately 60 minutes of the participants' time to complete the interview. There is no physical harm or reputational damage that will result from the interview.

Justice: The sample size will be 15 employees from various departments within the organisation. The target respondents will be selected based on their role within the organisation. The chosen employees will have equal opportunities to respond.

3.11 Proposed schedule and timelines

Table 3.1 below outlines the timeline for this study.

Activity	Description	Timeline
Research Panel Review	The student submits: - Research Proposal and research tools, and Turnitin report - Ethical Clearance Forms and accompanying documents	30-Jun-22
Panel sessions	Student present proposal before panel committee	4-7 July 22
Proposal defense outcome	Student receives feedback from the panel on project proposal outcome, ethics committee and approved title from the PG Committee	26-Jul-22
Title approval	Title tabled before PGC	13-Jul-22
Ethics approval	Ethics applications submitted to the WBS ethics committee	15-Jul-22
Research Progress	Data collection, analysis, and write up	Aug 22 – Jan 23
First draft	Completion of the first final draft project report. Student submits the first draft to the supervisor for sign off.	Jan-23
Submit final report	Final editing and electronic submission to the Faculty office	Feb-23
Examination	Examination process complete; submission of final documentation	May-23
Graduation	Graduation	Jul-23

Table 3.1: Timeline for this study

Table 3.2. Consistency table: research questions, propositions, data collection and data analysis

RQ #	State Research Question or Objective	Prop/hyp #	Theory/Model	State Proposition or Hypothesis	Research methodology	Data collection detail	Data analysis method
1	What factors influence digital adoption by employees in a South African bank?	1	Extended UTAUT as results of weight and meta-analysis (Cavalcanti *et al.*, 2022)	There are factors that influence digital adoption by employees in a South African bank	Qualitative, exploratory, case study	Document and literature review Semi-structure Interview	Thematic analysis
2	How can change management influence employees to accelerate the adoption of digital technology?	2	Awareness Desire Knowledge Ability Reinforcement (ADKAR) Change Model (Hiatt, 2006)	Change management can influence employees to accelerate the adoption of digital technology	Qualitative, exploratory, case study	Document and literature review Semi-structure Interview	Thematic analysis

CHAPTER 4. PRESENTATION OF FINDINGS

This chapter presents the findings of the qualitative research conducted for this study. A brief introduction and discussion on participant demographics will first be put forward. Thereafter each research question will be explored based on the findings garnered from participant responses to the associated semi-structured interview questions. Finally, further insights emanating from the interviews will be presented before concluding the chapter.

4.1 Introduction

Fifteen interviews were conducted for this study. The findings presented hereafter represent the voice of the participants and help to illuminate the two research questions explored in this study. The findings show that there are factors that influence digital adoption by employees in a South African bank and that change management can influence employees to accelerate the adoption of digital technology. The interviews also yielded further insights that were not apparent at the start of the research and did not emerge as part of the literature review. These insights shed further light on the research objective. The themes presented in this chapter have been developed following an inductive approach.

4.2 Demographics

Three distinct participant groups were chosen for this study: 1) Managers, 2) Change Practitioners, and 3) Non-managerial Employees. While all participants are themselves employees of the bank, each group provided responses to the questions reflected from the perspective of their role or level within the bank. All Managers were leaders of large teams of sixty or more employees and were responsible for driving technology implementation and digital adoption within their respective business areas. All Change Practitioners were specialists in people change management and formed part of project teams responsible for implementing new technology or enhancements to existing technology within the bank. Finally, all Non-managerial Employees had more than one year of service in the bank, and all had experienced technological change or the implementation of new technology to some degree during their tenure.

4.3 RQ 1: Factors that influence digital adoption by employees in a South African bank

Feedback from the participants interviewed in this study shows that there are distinct factors that influence digital adoption by employees in the bank. Three interview questions were used to explore the factors, and the findings for each question are outlined in the following sections. Where feedback from each of the participant groups was sufficiently nuanced per interview question, findings for each participant group will first be detailed before consolidating responses to highlight common themes in the form of an infographic. Where there was consensus across participant groups, findings will be presented as a consolidation of responses.

4.3.1 The meaning of digital adoption

Managers: Some participants in this group initially found it difficult to separate the customer and employee perspectives of digital adoption, citing examples of customers adopting the Bank's digital platforms and services before circling back to the employee perspective. Other participants in this group first considered the organisational perspective of digital adoption, referring to increased organisational capabilities brought about through automation and value extraction for the Bank, before commenting on the employee perspective. When considering the employee perspective of digital adoption, most Managers agreed that it meant usage, both in terms of how many employees were using the technology and to what extent the full capability of the technology was being utilised. Some participants commented that adoption also meant that employees understood the benefits of the technology for their own work performance and how the technology would help them to serve the Bank's customers better.

Change Practitioners*:* Most Change Practitioners put forward that digital adoption means that employees use the technology. They added further that adoption meant how well employees were using the technology and whether it was being used to its full extent. Some participants in this group offered that digital adoption also meant that employees know the capabilities of the technology and understand how the technology will benefit them in their work, which in turn would result in a change in behaviour or ways of working. One Change Practitioner noted, however, that "Usage does not always mean adoption" and "just because people use the digital technology does not mean that they adopt it" (P2). This Change Practitioner suggested further that adoption has two dimensions; 1) "Intellectual - are minds in it and do we understand the rationale", and 2) "Emotional - are our hearts in it, do we believe it and feel it". Another

participant in this group added that adoption included employees having the “will and curiosity” (P3) to use the technology.

Non-managerial Employees: Most participants referred to digital adoption in terms of the utilisation of technology and new ways of working that are brought about by technology. Most participants also suggested that digital adoption meant automation of work. Some Non-managerial Employees suggested that adoption included the mindset to want to use technology and the intention to do things in a new way, with one participant stating that adoption meant “open-mindedness to technology, unlearning and re-learning, and doing things differently” (P12). The same participant commented further that while digital adoption meant “moving with the times and technology” to stay relevant, it is important for the Bank to pursue automation “without losing the employee perspective”.

The diagram below offers a visual representation of the most common themes emerging from this interview question.

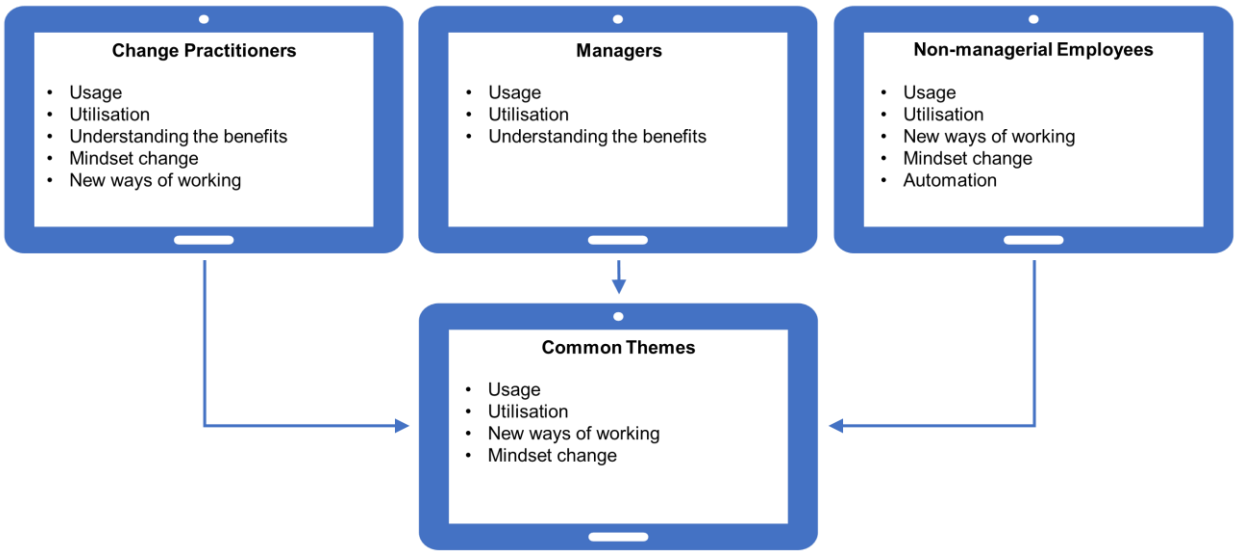

Figure 4.1: Themes identified from semi-structured interview question 1

4.3.2 Factors that influence digital adoption by employees

Managers: *Training and support, communication, generational differences, usefulness, and ease of use*, were cited by most managers as factors influencing digital adoptions. *Training and support* were mentioned in the context of employee readiness to use the technology and were also linked to the enablement and engagement of employees prior to and during technology implementation. *Communication* as a factor was centred on helping employees understand the benefits of technology, both in terms of how the technology could assist them

in doing their job better, as well as acknowledging what benefits the organisation could derive in terms of cost and time-saving. When discussing *generational differences*, most managers agreed that younger employees often found it easier to adopt digital technology compared to their older counterparts. In this regard, one Manager remarked, “Millennials and Gen Z come with digital readiness. Innovation comes easy to them; they are first adopters, digital natives, and find it easier to align with the digital agenda goals of the business” (P8). The same participant added the dimension of tenure as a related factor, suggesting that employees with longer tenure in the Bank may be accustomed to existing systems and ways of work and “may tend to struggle changing their mental model or fear of being replaced, which may increase resistance”. *Usefulness* was referred to in the context of how well the technology allowed employees to perform their jobs. In contrast, *ease of use* related to user experience and how easily the employee was able to navigate the technology.

Less common but noteworthy factors put forward by participants in this group included *frequency of use, culture,* and *the existence of alternatives*. Some Managers referred to the *frequency* at which employees were required to engage with the technology, suggesting that more frequent use and integration into daily activities lead to higher adoption. One Manager believed that organisational *culture* was an important factor, linking it to employee mindset and attitude towards digital adoption. The same participant also mentioned that the *existence of alternative* systems or ways of working influenced how employees adopted new technology, suggesting that adoption of new technology was better where no alternative was present, while some employees would revert to old systems or ways of work when given the option to.

Change Practitioners*:* Most Change Practitioners mainly cited *usefulness, ease of use, skills and training, and communication* as factors influencing digital adoption by employees. On *usefulness*, the degree to which the technology helped employees to perform their duties seemed to be most pertinent, with one participant stating that the technology needed to be “integral to the day-to-day existence” (P4) of the employee for them to adopt it. *Ease of use* centred on user experience, with participants suggesting that a better user experience leads to greater adoption and vice versa. The discussion on *skills and training* focused on helping employees to increase their competence in using the technology. *Communication* related to addressing employees’ fear of the unknown and helping them understand the benefits of the technology, both in terms of the business rationale for why the technology was being implemented as well as helping employees understand ‘what’s in it for me?’. Of all the common themes, the ‘what’s in it for me?’ narrative was identified as a particularly influential factor. It

seems that the more employees understand what's in it for them, the more curious, interested and willing they will be to adopt the technology.

Some Change Practitioners highlighted that *choice* was also an important factor. One participant commented on choice in terms of alternatives, suggesting that if alternatives exist, then adoption may be lower since employees will "opt out" (P5) or "revert to the old way of doing things". Another participant approached choice from a different angle, stating that "choice is related to control" (P2) and adding, "if you take away choice, you take away control, and this increases resistance".

Other noteworthy, although not as common, factors mentioned by participants in this group included *tenure, leader-led change, peer influence,* and *past experiences* with technological change. The discussion on *tenure* seemed to suggest that employees with long tenure may be used to doing things a certain way, which may make them less likely to adopt the technology. *Leadership* being seen to support and advocate the technological change was put forward as an important factor by one participant, suggesting that this was likely to influence higher levels of adoption by employees. Another participant suggested that *peer influence* was an important factor, adding that if employees see that "their colleague is doing well using the technology, then they will want to use it too" (P5). Some participants said that *past experiences* with how technological change was implemented might influence how new digital technology is adopted, adding that poor past experience makes it more difficult for employees to adopt new technology.

Non-managerial Employees: The most common factors influencing adoption by employees cited by participants in this category were *communication, change management, understanding the benefits, usefulness,* and *training*. *Communication* was spoken about as being important in terms of providing information, creating transparency, allaying fears and anxiety, and giving facts about the purpose and impact of technology as it relates to employees. One participant elaborated by adding that there should be "progressive communication, at the beginning, middle and end" (P12) of the technology implementation. *Change management* was often mentioned in the same context as communication. However, it stands out as a distinct theme as participants referred to change management as more than just an email and an important aspect of taking employees on the journey. In terms of *understanding the benefits*, Non-managerial Employees noted that it was important to have a holistic view of how the technology would benefit the organisation and themselves. One participant commented further that it was important to "localise understanding and not leave it a high level" (P12). The aspect of 'what's in it for me?' was identified as a prevalent theme

related to understanding the benefits and was often discussed together with *usefulness.* For example, one participant suggested that “if the user feels the technology will be useful and make a difference in their life, then there will be greater adoption” (P15). At the same time, another offered, “remember the human at the heart, technology must make life easier. Help them understand the benefit and how it will make life easier” (P14). *Training* related to being competent in using the technology, with one participant in this group noting that it was important to undertake a skills gap analysis before implementing new technology.

Some participants also cited mindset and *attitude, culture, and the organisational environment* surrounding the employee as additional factors influencing adoption.

The diagram below offers a visual representation of the most common themes identified from this interview question.

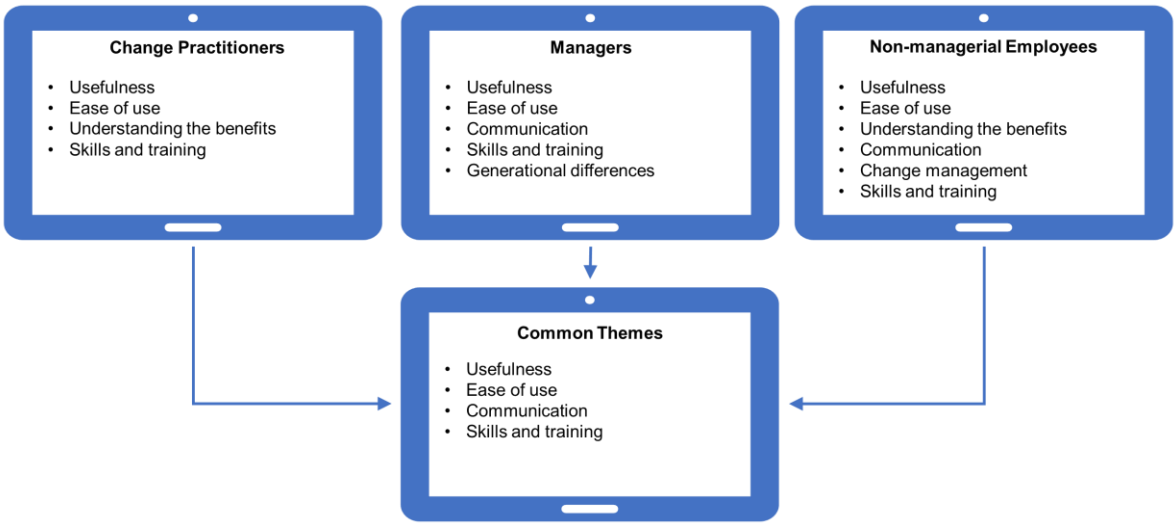

Figure 4.2: Themes identified from semi-structured interview question 2

4.3.3 The barriers to digital adoption

Managers: *Accessibility, availability, ease of use, usefulness, fear,* and *change management* were common barriers cited by most Managers. Participant feedback on *accessibility* related to employees having difficulty accessing bank systems from home, both during the recent pandemic when restrictions were imposed and post-pandemic when the bank instituted hybrid working policies (i.e., working from home or office). In this regard, Managers cited bandwidth, access to suitable devices such as laptops and smartphones, data, and internet connectivity as aggravating factors. One participant in this group suggested “zero rating bank applications” (P2) and providing employees with mobile data packages to mitigate this. Another participant suggested that some applications that are only accessible via desktops located on the bank’s

premises should also be made accessible via laptops and smart devices. Discussions on *availability* focused on system stability and reliability, with Managers adding that downtime often led to frustration and mistrust for their employees as it “made their jobs more difficult” (P9), with employees having to revert to manual processes. When referring to *ease of use*, Managers cited the lack of intuitiveness of the technology and poor user experience design as the main concerns. *Usefulness* as a barrier was directly related to how relevant the technology was to the employee's needs and whether the technology made the job of the employee easier or not. *Fear* was associated with the unknown and employee competence in using the technology. It was also related to perceptions about job security, especially where past experiences led employees to believe that technology implementation is used as a mechanism or reason to reduce workforce numbers. *Change management* was identified as a common barrier raised by Managers, both in terms of the lack of change management and ineffective change management practices.

Although not common, some Managers called out *organisational culture* and *bureaucracy* as barriers, particularly when they slowed down the enablement of colleagues.

Change Practitioners*:* Most Change Practitioners mainly cited *usefulness, ease of use, change management, communication,* and *fear*, as barriers to adoption by employees. *Usefulness* related to whether the technology was working as efficiently and effectively as intended and whether it was critical to employees performing their duties. Participants added that lack of usefulness leads to employees being frustrated, not trusting the technology, or not using it altogether. *Ease of use* was referenced in the context of user experience and whether navigating the technology was logical or frustrating; the more frustrating and tedious the user experience, the greater the barrier for employees to adopt. *Change management* was broadly discussed, with participants citing a lack of information and knowledge, change fatigue, lack of adequate upskilling, the change not being leader-led, a lack of support structures, and a lack of time and money invested for enablement activities, as barriers to digital adoption by employees. *Communication* was highlighted as a barrier, particularly where it was absent or insufficient in supporting digital adoption. One participant offered a remedy, suggesting that “consistent subtle messaging” (P4) could be used to encourage adoption. Finally, *fear* was identified as a common theme and was discussed in terms of fear of change itself and fear of the employee not being competent to use the technology. As one participant put it, “fear of change and fear of the unknown is universal but is exacerbated in the digital realm” (P2). Some

Change Practitioners called out the *age* and *tenure of employees* as a potential barrier, suggesting that older employees or those with longer tenure in the bank may be “used to doing

things a certain way" (P1) and may therefore be more resistant to adopting new technology. One participant cited the availability of employees, a consequence of the bank's hybrid working policies, as a barrier to delivering change initiatives to drive adoption.

Non-managerial Employees: The most common barriers emanating from this participant group included *change management, communication, fear,* and *support*. Non-managerial Employees referred to a lack of planning, preparation, socialisation, and adequate time to adopt technology when discussing *change management*. Some added that not addressing concerns upfront or dealing with detractors contributed to change management as a barrier. In addition, the volume and pace of change employees experienced made it difficult to know where and on what to focus. *Communication* was related to a lack of information, misinformation, not understanding why the technology was needed or beneficial, and not understanding how it would impact or benefit them. *Fear* as a theme included fear of job losses or being replaced by technology and fearing not being competent enough to use technology effectively. Fear seemed to be exacerbated when change management and communication were ineffective. The theme of *support* was broad, with Non-managerial Employees citing lack of training, lack of tools, lack of support from managers, a culture that did not support or encourage digital adoption, and misalignment between organisational policies and processes with technology as contributing factors.

Although not as common, the *existence of alternatives* was also discussed, both in terms of alternate systems and manual ways of work. One participant remarked in this regard that the bank was "not being bold enough to switching off old systems" (P13), which impeded the adoption of new systems since employees reverted to using what they were already comfortable with.

The diagram below offers a visual representation of the most common themes identified from this interview question.

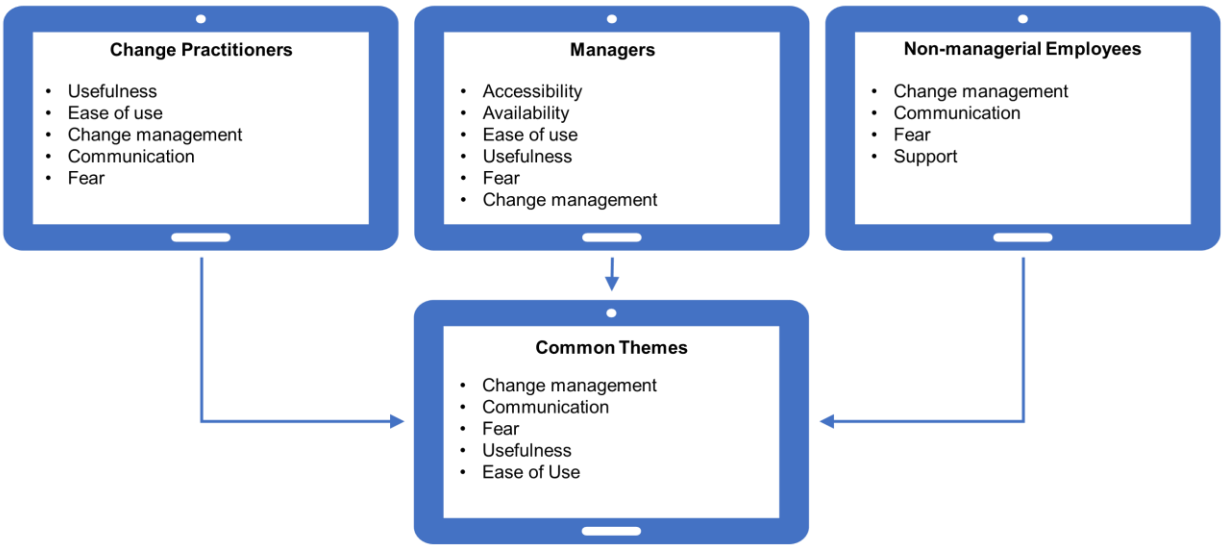

Figure 4.3: Themes identified from semi-structured interview question 3

4.3.4 Accelerating digital adoption

Feedback from participants for this interview question can be grouped into the following themes: culture, technology, and change management.

Culture*:* Participants suggested that digital adoption should be integrated into the culture of the bank. This could be done by establishing a digital culture narrative with defined values and behaviours. These values and behaviours could then be included as part of orientation programmes for new employees and education programmes for existing employees. The role of leadership was also emphasised in fostering a digital culture, particularly role-modelling behaviours and upholding values. Participants also put forward that no technology should be seen in isolation from the bank's purpose and that all technology should be linked to why it is important and how it will make the bank a better business.

Technology*:* To accelerate digital adoption, participants suggested that the bank should select and implement the right technology, ensure the technology is tested thoroughly, and that alternatives are not available for employees. When selecting technology, participants suggested that the bank assesses whether the technology will work for the organisation and its strategic ambitions. They warned against choosing technology simply because it works elsewhere in the world and instead ensure that the technology is relevant for the South African context. Participants added that it was important to assess the longevity and agility of the technology and whether it could be upgraded or updated as the business needs change.

Testing the technology thoroughly and ensuring that it performs as expected was highlighted as another important factor. While it was acknowledged that the bank could not slow down the pace of technology change, it should do so in a scaled, agile manner and ensure that technology is ready to use by employees. Finally, participants suggested that the adoption of one technology could be accelerated by taking away all other options, emphasising that the bank should be brave and make decisions to switch off old systems in favour of new systems or functionality.

Change Management: Participants questioned whether change management in the bank had kept pace with the rate of technological change. They commented that change management might be stuck in the old mode or models and proposed that a fresh take on the practice may be required to accelerate digital adoption. Some suggestions included heightening practices aimed at building awareness, commitment, and knowledge, allowing employees to practice and experience the technology, and creating feedback loops to identify gaps. Garnering input and involving employees in change management practices seemed to be a particularly pertinent theme. This encompassed including employees upfront during change management planning to shape the approach, leveraging employees to support and coach others during implementation, and gaining employees' feedback on what should be focused on or how it should be fixed.

The diagram below offers a visual representation of the most common themes identified from this interview question.

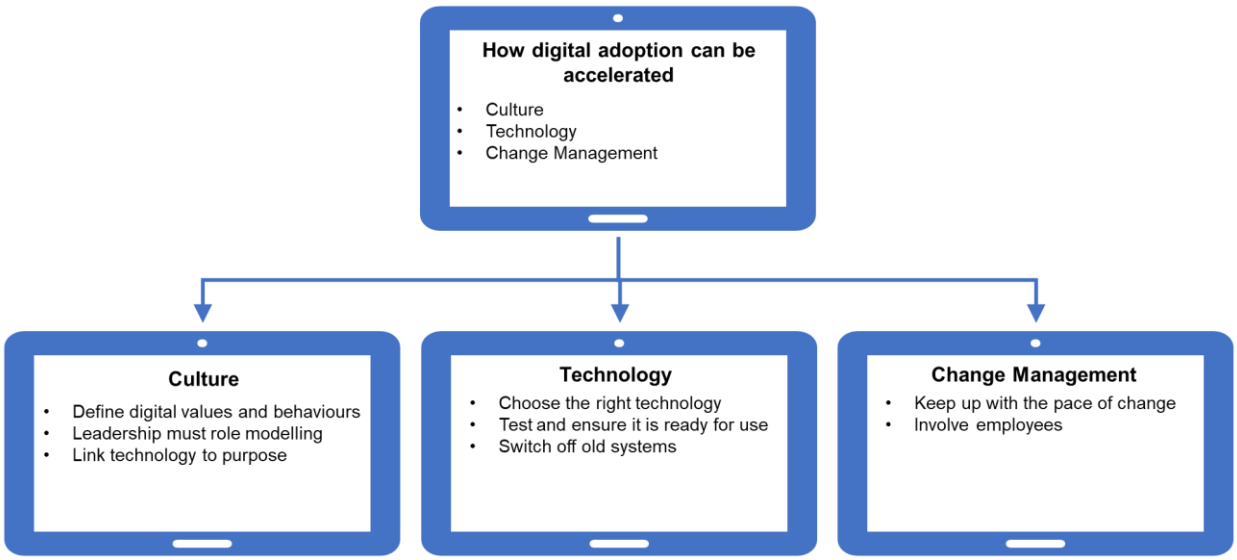

Figure 4.4: Themes identified from semi-structured interview question 6

4.4 RQ 2: Change management can influence employees to accelerate the adoption of digital technology

Three interview questions were used to explore the role of change management in supporting digital adoption. The findings for each question are outlined in the following sections. Feedback from the participants interviewed in this study shows that while change management plays a vital role in supporting digital adoption, improvements to the practice are required for it to be effective and help accelerate adoption. Three factors were also identified as potential accelerators for digital adoption: culture, technology and change management.

4.4.1 Change management supporting digital adoption

As a theoretical concept, all participant groups agreed that change management is critical to digital adoption. As one Non-managerial Employee put it, change management "is imperative; it is at the heart of digital adoption", with one Manager stating that "there will be no digital adoption without proper change management". One Change Practitioner noted that "change management is the processes and tools used to move individuals from the current to the desired state. It is the means by which we achieve digital adoption". Change management was generally cited as helping to establish a people-centred approach, especially during technology-related change initiatives or when driving digital adoption. Some of the benefits of change management noted amongst the participants included creating awareness, creating comfort, creating excitement, getting support and buy-in, changing hearts and minds, removing barriers, and removing fear.

As a practice, however, all participant groups noted that implementing change management in the bank is currently ineffective. There seems to be insufficient focus, time or investment in communication and change management. In addition, employee resistance to change is poorly understood and, therefore, not adequately addressed, leading to lower digital adoption. Change management efforts seem to be cursory at best, focusing on communicating the change at a high-level upfront without much reinforcement during or post-implementation. Change management approaches were also highlighted as being too generic and did not account for nuances in the employee population or specific needs of individuals.

4.4.2 Improving change management to support digital adoption

Feedback on this question from all participants can be broadly grouped into two categories; 1) increasing support for the practice of change management at an organisational level, and 2) enhancing how change management is conducted. While mainly Managers and Change Practitioners provided input on how the bank could support the practice from an organisational level, all three groups contributed to how change management could be improved in practice.

In terms of increasing support at an organisational level, it was suggested that the importance of change management should be elevated within the bank. This can be achieved by integrating change management practices into technology projects, from initiation to implementation and embedment. One Change Practitioner drove this point home by stating, “Business won’t proceed without an architecture diagram for technology, so should we not proceed without an understanding of how the human aspect will be handled to maximise adoption from inception.” Increasing the investment in change management practices was another way that most participants put forward to improve change management in support of digital adoption, with one Manager asserting that the bank should “invest in change management to drive adoption in a commensurate way to the investment we make in technology” (P7).

Suggestions from participants on how change management could be improved in practice within the bank can be categorised in terms of what should happen before, during and after a technology is implemented.

Before implementation*:* Improvements in this category include *needs analysis, planning, communication, leadership advocacy*, *testing* and *piloting*. Most participants strongly suggested that the characteristics, fears, skills, and readiness levels of employees should be well understood in the form of a *needs analysis*. This should ideally be done at an individual level so that tailored change management *planning* can be done that address the specific dynamics of the employees who need to adopt the technology. Additionally, understanding what other changes were happening in the work lives of employees should be understood and catered for in the change plan. It was also widely suggested that employees are given sufficient information to understand the context and need for the technology, why it should be adopted, how it would benefit them, and how it would benefit the bank. This can be done by demonstrating or communicating how the technology makes the life of the employee easier. *Communication* should be clear, consistent, and reinforced regularly. Analogies and storytelling could be used to help colleagues relate to the technology, overcome resistance,

ease fear, and embrace the new way of working. Some participants also put forward that *leadership advocacy* and visibility for the change is important as this would help increase trust and decrease employee resistance. One example offered for how this could be achieved is to have a statement of intent or commitment from senior leaders endorsing and using the technology. *Testing* and *piloting* were also suggested as possible ways to improve change management and increase digital adoption. It was noted that new technology is often not thoroughly tested before deployment resulting in the system not functioning as intended. This leads to increased frustration and a deterioration of trust in the technology by employees, who may then revert to old systems or ways of work. To address this, participants suggested including employees upfront in the design and testing of technology so that developers could better understand potential issues and concerns, increase intuitiveness and ease of use, and enhance overall usability. Piloting with a group of employees could also have several benefits. The insights gained may help to fine-tune the technology before implementation further. Further insights could be gained from observing employees who freely engage with the technology. These insights may help to map out the employee journey and craft a compelling message that aids in increasing acceptance and adoption when the technology is fully implemented.

During implementation*:* Improvements in this category include *training, demonstrating benefits, providing support, recognising early adopters*, and *measuring adoption*. Participants promoted *training* and upskilling aimed at giving employees the confidence to navigate and fully utilise the technology, adding that training should be practical and related to their jobs. A related but distinct theme was *demonstrating the benefits* of the technology to employees through scenarios and roleplays associated with their jobs. This would help employees understand the benefits of the technology and address 'what's in it for me?' in an applied way. *Support* from senior leaders, managers and change agents was identified as another way to improve change management to increase digital adoption. It was suggested that senior leaders should be visible, set the guidelines, and communicate in a way that embraces the change. Participants put forward that the direct managers of employees should be seen to "walk the talk" (P3) by using the technology themselves, providing support to employees, and directly encouraging employees in their teams to adopt the technology. Change agents referred to both change practitioners and non-managerial employees involved in supporting the change initiative. For this cohort, participants suggested direct engagement with employees to help them through the change process and address personal resistance where it existed. Identifying *early adopters* and understanding what made them adopt was posited as another way for improvement to be considered. Insights gained from early adopters could be used to drive

mass adoption. In addition, recognition of early adopters and communicating testimonials from early adopters could be used as a mechanism to encourage adoption by others. Finally, participants suggested improving how the effectiveness of change management efforts is *tracked and measured*. When assessing the performance of the change management, the business should be open to changing course or enhancing practices if required, with participants emphasising the need for the process to be dynamic and iterative rather than fixed or static.

After implementation: Improvements in this category include *time, measurement*, and *support*. Participants cited allowing more *time* for embedment as an important consideration, with some adding that just because a system is deployed does not mean that the change management process should end. *Measurement* in this category related to understanding how well the change was being adopted and why. Rather than solely relying on dashboards and reports, participants suggested direct engagement with employees through deep dives and focused groups to understand a variety of factors, including what is working well and what is not, what is stopping employees from making full use of the technology, what their suggestions are on how to improve the technology, and their opinions on the approach used to launch the technology. These insights could be used to further enhance the embedment and adoption of the current technology and to enhance approaches for future technology implementations. Finally, ongoing *support* from senior leaders, managers and change agents was suggested as another enhancement to current change management practices. This included consistency of communication, reinforcing positive adoption behaviour, and directly engaging with employees to address barriers and resistance to change.

The diagram below offers a visual representation of the most common themes identified from this interview question.

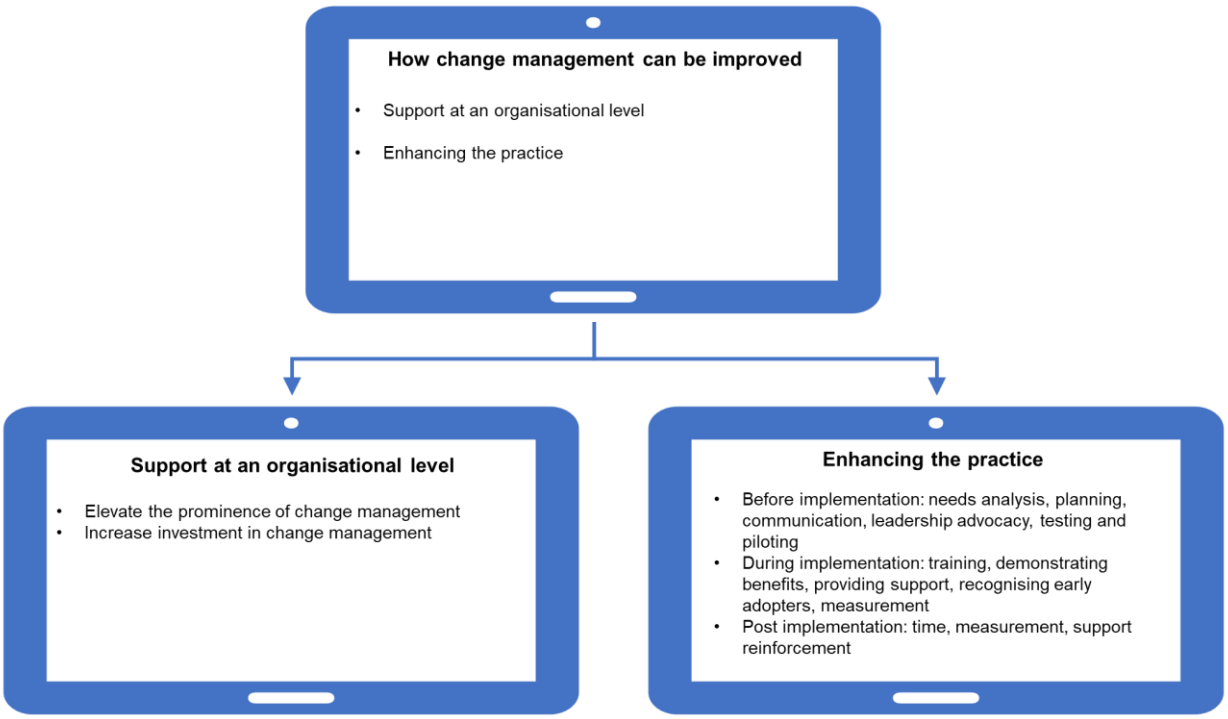

Figure 4.5: Themes identified from semi-structured interview question 5

4.5 Further insights

4.5.1 Measurement of adoption

Participants made the distinction between lead and lad indicators when considering digital adoption. Usage, utilisation, and proficiency were identified as lag indicators. Participants noted that these were measured after implementation and often too late in the change process to have a meaningful impact. It was suggested that measurement be done early in the change management process. Measurement should also include lead indicators such as change readiness assessments, commitment from senior leaders, involvement by management, understanding of the information shared by employees, the sentiment of employees, and the effectiveness of change agents. In this way, change practitioners can be proactive and ensure that the change process is dynamic and responsive to the needs of the technology implementation in such a way that it facilitates higher adoption.

4.5.2 Gamification to drive adoption

Gamification was recommended by some participants to incentivise the adoption of technology. The elements of healthy competition and fun were put forward, with a suggestion

to use leaderboards to track adoption, pitch teams against each other, publicly recognise early adopters and award prizes. This would help to create positivity and excitement for the technology implementation and get employees to participate in the change process.

4.5.3 Emerging technology as tools for change management

Some participants suggested leveraging emerging technology, such as augmented reality and virtual reality, to supplement traditional change management methods and tools. Taking learning into the metaverse was recommended as a novel allow employees to engage with and experience new technology before it is implemented.

4.6 Summary

The findings presented in this chapter highlight the feedback from the fifteen participants interviewed for this study. Three questions explored the phenomenon of digital adoption. First, participants provided their views on what digital adoption is. Common themes emerging indicated that digital adoption meant *usage*, *utilisation, new ways of working* and *mindset change*. Next, feedback from the participants shows that there are distinct factors that influence digital adoption by employees in the bank; *usefulness, ease of use, communication*, and *skills and training*. Thereafter barriers to digital adoption were discussed, and common themes in this regard were found to be *change management, communication, fear, usefulness,* and *ease of use*. Interview questions then pivoted towards the phenomenon of change management. Participants indicated that while change management as a concept was critical to digital adoption, the practice and application of change management in the bank are currently ineffective. Participants then gave suggestions on how change management could be improved to support digital adoption, with feedback grouped into two main categories: 1) support at an organisational level and 2) enhancing the practice of change management. Finally, participants were invited to provide input on how digital adoption can be accelerated. In this regard, suggestions could be clustered into the themes of culture, technology, and change management. Further insights garnered through the interview process, not related to any specific interview question, could be associated with the measurement of adoption, gamification to drive adoption, and the use of emerging technology as tools for change management.

CHAPTER 5. DISCUSSION OF FINDINGS

This chapter provides a discussion of the findings in the context of the literature review and theoretical models selected for this study. A brief introduction will be followed by a discussion of the interview questions that inform the two research questions. Finally, further insights emanating from the interviews will be discussed before concluding the chapter.

5.1 Introduction

Research question one (RQ1) explores the factors influencing employees' digital adoption in a South African bank. The discussion begins by first considering what digital adoption means to the study participants in relation to findings in the literature. In this regard, it emerges that the Manager group of participants default to considering digital adoption from the customer and organisational perspective, which is consistent with the findings in the literature. When the employee perspective is considered, participants share similar views with theorists from the lenses of digital transformation and digital adoption theory. Next, due to the overlap identified from participant feedback, the factors influencing digital adoption and the barriers to digital adoption are discussed together. Both the participants and the literature reviewed in this study find that Usefulness, Ease of use, Communication, and Skills and Training can either influence higher adoption or act as barriers to adoption. Fear was identified as a barrier to digital adoption by participants, and although it does not appear in digital adoption literature as a standalone factor, it is juxtaposed with the construct of trust, which has been found to have an influential relationship with technology adoption. Finally, when considering how digital adoption could be accelerated, participants identified Culture, Technology and Change management as the main themes to consider. Participants' input on Culture and Technology largely resonates with findings in digital adoption and digital transformation literature. In the case of Culture, participants' input may even help to illuminate further the role that this factor plays in driving digital adoption. In the case of Technology, the matter of the availability of alternative technology put forward by participants does not find resonance in the literature and may be a factor unique to organisations that are transitioning from legacy systems to new technology.

Participants identified Change Management as a potential barrier and accelerator of digital adoption. Studies and theories related to digital adoption, digital transformation and change

management considered in the literature reviewed as part of this study agree with the sentiments of participants, which are discussed in detail.

Research question 2 (RQ2) discusses whether change management supports digital adoption and how the practice can be improved to accelerate adoption. While participants agreed that change management should support digital adoption in theory, it was also highlighted that change management in the bank is currently ineffective. This dichotomy is echoed in the literature. Input from participants on how change management can be improved is then discussed using a widely used model for managing change to understand how digital adoption can be accelerated.

5.2 RQ 1: Factors that influence digital adoption by employees in a South African bank

5.2.1 The meaning of digital adoption

Some participants in the Manager group initially found it difficult to separate the customer and employee perspectives of digital adoption, citing examples of customers adopting the Bank's digital platforms and services before circling back to the employee perspective. Other participants in this group first considered the organisational perspective of digital adoption, referring to increased organisational capabilities brought about through automation and value extraction for the Bank, before commenting on the employee perspective. This is consistent with the findings of the literature review that, despite important theoretical progress in understanding digital transformation, there has been relatively limited integration of employee-related factors, with existing digital transformation models primarily focused on technology and strategy considerations (Ahmed *et al.*, 2019; Machado *et al.*, 2021; Selimovic, 2021; Trenerry *et al.*, 2021; Kraus *et al.*, 2022). None of the dominant themes identified in the study by Kraus *et al.* (2022) related specifically to employees, with even the second most dominant theme in the literature, i.e., 'use of digital technologies', referring to the business-to-business context as opposed to an employee-related perspective.

When considering what digital adoption means from the employee perspective, participants' feedback identified the following aspects: usage, utilisation, new ways of working and mindset change. The definition of digital adoption offered by Cavalcanti *et al.* (2022) puts forward that individual digital adoption is the degree to which disruptive and transformative technologies are adopted and/or accepted by individuals. This definition accounts for the 'usage' (are

employees using the technology) and ‘utilisation’ (how well and to what extent are employees using the technology) aspects identified in this study. Although the aspect of ‘mindset change’ is not directly accounted for in the definition offered by Cavalcanti *et al.* (2022), it is included to some extent in the construct of ‘attitude’ that the authors put forward in their proposed model following a weight and meta-analysis of UTAUT. ‘Attitude’ in adoption theory refers to positive or negative feelings about the performance of an individual’s intended behaviour, which has an influence on the adoption of technology (Cavalcanti *et al.*, 2022). The ‘new ways of working’ aspect is not included in the digital adoption literature reviewed for this study; however, it is accounted for in the broader phenomenon of digital transformation. Digital transformation refers to a multi-factor organisational change process of continuous adaptation and improvement where all employees are adopting technology and finding new ways to use technology to build innovation into products, services, and business processes (Westerman *et al.*, 2014: Kane *et al.*, 2019; Machado *et al.*, 2021; Trenerry *et al.*, 2021; Kraus *et al.*, 2022).

5.2.2 Factors that influence digital adoption by employees *and* The barriers to digital adoption

5.2.2.1 Usefulness

Participants identified *usefulness* as both a factor influencing digital adoption by employees and as a barrier to digital adoption. This aligns with the findings of various theoretical models considered in this study, such as TAM (Davis, 1989), UTAUT (Venkatesh *et al.*, 2003), EREB Model (Lai & Ong, 2010) and UTAUT2 (Venkatesh *et al.*, 2012) where higher ‘perceived usefulness’ tends to lead to higher adoption.

5.2.2.2 Ease of use

‘Perceived ease of use’ has been found to be a factor influencing digital adoption and is included in various theoretical models (Davis, 1989; Venkatesh *et al.*, 2003; Lai & Ong, 2010; Venkatesh *et al.*, 2012). Furthermore, it has been found to have a high correlation with digital adoption, with higher ‘perceived ease of use’, leading to higher adoption of technology. Participants in this study agreed with the conclusions of these prior studies by recognising *ease of use* as both a factor influencing digital adoption and as a barrier to digital adoption by employees.

5.2.2.3 Communication

Participants of this study identified *communication* as both a factor influencing digital adoption by employees and as a barrier to digital adoption. Communication does not feature as a standalone factor in the theoretical models for digital adoption or digital transformation considered in the literature review of this study. It is, however, included in the ADKAR change management model as a component of the Awareness stage (Prosci, 2022).

5.2.2.4 Skills and training

Skills and training were commonly identified by participants interviewed in this study as a factor influencing digital adoption by employees. Although not included as a standalone factor in digital adoption theory, skills and training form part of the 'human capital' moderator, which has been found to strengthen the relationship between 'behavioural intentions' to 'usefulness' and 'ease of use' (Cavalcanti *et al.*, 2022). In addition, Trenerry *et al.* (2021) account for 'skills and training' as an important individual factor in their multi-level theoretical framework for understanding workplace digital transformation.

5.2.2.5 Change management

The ineffective implementation of *change management* was identified as a barrier to digital adoption based on interviews conducted for this study. This aligns with a McKinsey (2016) report which highlights that 70% of business transformation projects fail, with 39% of the failures explained by employee resistance to changes, 33% by the lack of support for changes from the managers, and 14% due to inadequate resources or other reasons. While change management does not emerge as a standalone factor in the literature review for digital adoption, elements of change management do. Skills and training, which forms part of the Knowledge stage of the ADKAR model (Prosci, 2022), is a subset of the Human Capital moderator, which was found to strengthen the relationship between behavioural intentions to usefulness and ease of use (Cavalcanti *et al.*, 2022). Ability is the fourth stage of the ADKAR model and accounts for the provision of time, resources and coaching to individuals to develop the required skills and behaviours. It can be argued that these aspects relate to the Facilitating Conditions construct found in digital adoption theory. Facilitating Conditions refers to the perception of support and available resources for conducting behaviour and has been found to impact the user's intention to adopt technology significantly (Cavalcanti *et al.*, 2022).

The literature review for this study found that change management seems to be increasing in relatedness to the digital transformation phenomenon, both from the perspective of recent academic interest and nascent theoretical models. Following a thematic mapping of digital transformation literature relating to business and management, Kraus *et al.* (2022) found that the term ‘change management’ featured on the list of the most frequently mentioned keywords in articles related to digital transformation since 2018. The relatedness seems to also extend to theoretical models, with Trenerry *et al.* (2021) including aspects of change management in all three levels of their multi-level digital transformation framework. Within the Individual level, skills and training are identified and can be linked to the Knowledge stage of ADKAR. In contrast, team communication and collaboration at the Group level and leadership at the Organisational level can be linked to the Awareness stage of ADKAR.

5.2.2.6 Fear

Fear was put forward as a barrier to digital adoption by participants in this study. While fear did not emerge as a factor in the literature reviewed, it may be argued that fear can be juxtaposed with trust. In this regard, Cavalcanti *et al.* (2022), in their weight and meta-analysis study, highlighted the construct of ‘trust’ as a factor influencing digital adoption. Through the lens of adoption theory, ‘trust’ was found to have an influential relationship with ‘ease of use’, ‘use behaviour’, ‘behavioural intention’ and ‘attitude’, which in turn influence the adoption of technology. ‘Trust’ is also identified in the Awareness stage of the ADKAR model (Prosci, 2022). However, in this context, it relates to trust in the sender of communication as opposed to the issues raised by participants in this study.

5.2.3 Accelerating digital adoption

Participants identified three themes that could accelerate digital adoption: 1) Culture, 2) Technology, and 3) Change Management.

5.2.3.1 Culture

Participants suggested that defining *digital values and behaviours*, *leadership role modelling*, and *linking technology to the purpose* of the bank were key elements of culture that would aid in accelerating digital adoption. Trenerry *et al.* (2021) account for culture at the organisational level of their multi-level theoretical framework for understanding workplace digital transformation. The authors find that a bottom-up engagement in digital strategy and change

supports digital transformation and innovation. However, they conceded that more research is required to understand the role of organisational culture in shaping digital transformation. As such, the suggestion put forward by participants in this study for *digital values and behaviours* to be established by the bank adds to the understanding of culture as a factor in digital transformation. Participants in this study referred to *leadership role modelling* as important to driving digital adoption, which is congruent with findings in digital transformation literature. Trenerry *et al.* (2021) highlight leadership as a standalone factor at the organisational level of their digital transformation model. The authors emphasised the role of leaders in digital transformation, and they found that leaders who are responsive to employee experiences and encourage experimentation may also be more effective in leading digital transformation. Westermann *et al.* (2014) point out that one of the best ways to encourage employees to embrace new technology and new ways of working is to act as a role model, adding that role models set expectations for the rest of and give employees an opportunity to engage directly with senior leadership. In discussing the theme of *linking technology to purpose*, participants in the current study noted that technology should be linked to why it is important to the bank and how it will make it a better business. While not directly referenced in the literature review, this line of thinking relates to the construct of 'compatibility'. Compatibility refers to the degree of consistency and adequacy of a technology to the needs and values of the adopters. It was found to have a positive relationship with 'behavioural intentions' and 'use behaviour' towards adopting technology (Trenerry *et al.*, 2021).

5.2.3.2 Technology

Participants suggested that to foster higher digital adoption of a technology, the bank should select and implement the right technology, thoroughly test the technology, and ensure that alternative technologies are unavailable for employees. When selecting technology, participants suggested that the bank assesses whether the technology will work for the organisation and its strategic ambitions. This agrees with the findings on the 'compatibility' construct by Trenerry *et al.* (2021), where it was found to influence 'satisfaction' and, thereby, the adoption of technology. In addition, Blut *et al.* (2021) emphasised the need for leaders to consider technology compatibility for employees and the organisation as it brings the challenge of displacing an already known ecosystem through changes. Testing the technology thoroughly and ensuring that it performs as expected was highlighted as another important factor highlighted by participants in this study. This is consistent with digital adoption literature on the 'performance expectation' construct, which was found to impact 'user intention' to adopt technology significantly (Venkatesh *et al.*, 2003). Finally, study participants suggested that the

adoption of new technology could be accelerated by taking away existing alternative technology. The literature reviewed in this study did not yield findings on how the availability of existing technology as an alternative impact the adoption of new technology. This phenomenon may be unique to the case site or similar organisations where legacy systems are being replaced by new technology. Taking the case site for this study as an example, existing legacy systems that are mission-critical are often left in service or run parallel to the new technology meant to replace them.

5.2.3.1 Change Management

Participants interviewed for this study suggested that change management seems to have not kept up with the pace of technological change and proposed that a fresh take on the practice may be required to accelerate digital adoption. Some suggestions included heightening practices aimed at building awareness, commitment, and knowledge, allowing employees to practice and experience the technology, and creating feedback loops to identify gaps. From a digital adoption perspective, the change management discipline is not specifically called out in the literature. It can be argued, however, that the practices and outputs of change management are accounted for in the 'facilitating conditions' construct found in adoption theory. 'Facilitating conditions' refers to perceptions about support and available resources for conducting a behaviour (Venkatesh *et al.*, 2003) and has been found to significantly impact the user's intention to adopt technology (Cavalcanti *et al.*, 2022).

5.3 RQ 2 Change management can influence employees to accelerate the adoption of digital technology

5.3.1 Change management supporting digital adoption

Participants in this study agreed that change management is critical to digital adoption in theory, citing its importance in helping to establish a people-centred approach, especially during technology-related change initiatives or when driving digital adoption. As a practice, however, all participant groups noted that the application of change management in the bank is currently ineffective. There seems to be insufficient focus, time or investment in communication and change management. In addition, employee resistance to change is poorly understood and, therefore, not adequately addressed, leading to lower digital adoption. This contradiction between theory and practice is consistent with the literature reviewed for this

study. Nevertheless, there is growing consensus that employees are critical to the organisational change process, and the goal of change management in this regard is to enable them to engage, adopt and use the change effectively within business (Hiatt & Creasey, 2012; Westerman *et al.*, 2014; Kane *et al.*, 2019; Prosci, 2022; SHRM, 2022). Despite this consensus, however, there is also agreement that businesses are generally slow to respond to change, and when they do respond, businesses find it difficult to implement those changes (Galli, 2018; Bekmukhambetova, 2021; Kraus *et al.*, 2022; Trenerry *et al.*, 2022).

5.3.2 Improving change management to support digital adoption

In order to improve change management to support digital adoption, participants in this study suggested increasing support for the practice of change management at an organisational level and enhancing how change management is conducted.

In terms of increasing support at an organisational level, participants indicated that the importance of change management should be elevated within the bank, adding that this can be achieved by integrating change management practices into technology projects from initiation through to implementation and embedment. This view is consistent with the approaches suggested in change management and digital transformation literature reviewed for this study (Westerman *et al.*, 2014; Kane *et al.*, 2019; Prosci, 2022).

When considering how the practice can be enhanced, participants provided recommendations of what should happen before, during and after a technology is implemented. These practice enhancements resonate with the Prosci 3-Phase Process, a structured process for driving organisational change within which the ADKAR Model resides (Prosci, 2022). The table below shows how participant feedback aligns with the Prosci 3-Phase Process.

Participants' dimension of change management to be improved	Participants' suggested areas for improvement	Prosci 3-Phase Process	Prosci 3-Phase Process considerations (Prosci, 2022)
Before implementation	• Needs analysis: *understand the characteristics, needs, fears, skills, and readiness levels of employees* • Panning: *created a tailored change plan and cater for other changes that may be happening* • Communication: *clear and consistent communication about how the technology makes the life of the employee easier* • Leadership advocacy: *leaders should be visible and advocate the change* • Testing and piloting: fully test before deployment resulting and get employee input	**Prepare Approach**	• Define Success: *What are we trying to achieve?* • Define Impact: *Who has to do their jobs differently and how?* • Define Approach: What will it take to achieve success?
During implementation	• Training: *give employees the confidence to navigate and fully utilise the technology, and make it practical* • Demonstrating benefits: *through scenarios and roleplays associated to their jobs* • Providing support: *from senior leaders, managers and change agents* • Recognising early adopters: *celebrate them and understand what made them adopt* • Measuring adoption: *track progress and be opened to changing course or enhance practices if required*	**Manage Change**	• Plan and Act: What will we do to prepare, equip and support people? • Track Performance: How are we doing? • Adapt Actions: What adjustments do we need to make?
After implementation	• Time for embedment: *just because a system is deployed does not mean the change is over, allow enough time for embedment* • Measurement: *don't rely relying on dashboards and reports, engage with employees through deep dives and focus groups to understand what is working and what is not* • Support: *Ongoing support and communication from senior leaders, managers and change agents*	**Sustain Outcomes**	• Review Performance: Now, where are we. Are we done yet? • Activate Sustainment: What is needed to ensure the change sticks? • Transfer Ownership: Who will assume ownership and sustain the change?

Table 5.1: Alignment of participant feedback on how to improve change management with Prosci 3-Phase Process

5.4 Further Insights

5.4.1 Measurement of adoption

Participants distinguished between lead and lad indicators when discussing measuring digital adoption. Lead indicators included change readiness assessments, commitment from senior leaders, involvement by management, understanding of the information shared by employees, the sentiment of employees, and the effectiveness of change agents. These are typically associated with change management (Prosci, 2022). Lag indicators were identified as usage, utilisation, and proficiency, generally associated with digital adoption theory (Cavalcanti *et al.*, 2022). This distinction reinforces the relatedness of change management and digital adoption and suggests that successful change management may be an indicator of successful digital adoption.

5.4.2 Gamification to drive adoption

Gamification was recommended by some participants as a means to incentivise adoption, create positivity and excitement, and get employees to participate in the change process. This recommendation is supported by Salesforce, which advocates gamification techniques to drive implementation success, increase employee engagement, and positively impact employee performance. The technology firm cites research that shows 83% of employees who receive gamified training experience higher motivation and a 30% increase in their knowledge retention (Salesforce, 2022).

5.4.3 Emerging technology as tools for change management

Some participants suggested leveraging emerging technology, such as augmented reality and virtual reality, to supplement traditional change management methods and tools. A report from IBM (2017) supports this view and finds that extended reality (the term used to describe a combination of augmented reality, virtual reality, and mixed reality) technologies have the potential to positively impact organisations in terms of training, workflows, and employee engagement.

5.5 Summary

The discussion presented in this chapter shows there is a high level of congruence between the views of participants in this study and the existing literature on digital transformation, digital adoption and change management. In some instances, themes identified by participants directly related to findings in the literature; for example, the tendency for management to take a customer or organisation perspective on the meaning of digital adoption and the influential effects of factors such as ‘perceived usefulness’ and ‘perceived ease of use’ which can act as both an enabler and barrier to the adoption of technology. In other instances, participants' input helps to better understand how theory, such as change management, can be applied in practice. In some instances, themes identified from participant feedback may help to elucidate existing but not well-understood factors, such as the role of culture in digital transformation.

CHAPTER 6. CONCLUSION, LIMITATIONS AND RECOMMENDATIONS

6.1 Introduction

Pre-digital businesses such as banks are being compelled to transform their ageing technology infrastructure and ways of working in order to remain competitive in the modern economy. This requires significant investment in the development and implementation of digital technology, the adoption of which by their employees is a critical success factor. Past research on digital transformation has largely focused on IT-enabled change at the business and strategic levels, with only modest integration of employee-related factors recently. The literature review for this study has shown that digital transformation, digital adoption and change management are distinct but interrelated concepts. The purpose of this qualitative study is to provide an employee perspective on digital adoption in a South African Bank. It has done this by exploring the factors influencing the adoption of digital technology by employees and considering how change management can influence employees to accelerate the adoption of digital technology.

From the literature reviewed for this study, it is observed that for businesses to transform digitally, digital adoption by employees is essential, and change management may help to accelerate adoption by employees. The theoretical framework that underpins this study (Figure 2.10) shows a nesting of interrelated but distinct theoretical models that describe the phenomena of digital transformation, digital adoption and change management. It is within this framework that feedback from the fifteen participants interviewed for this study has been reviewed and discussed.

Five participants each were selected from three distinct employee groups within the case site: 1) Managers, 2) Change Practitioners, and 3) Non-managerial Employees. Although each participant was asked the same set of questions, grouping them this way proved useful in triangulating responses relative to the research questions since each group provided input from the perspective of their role or level within the bank. While responses to most interview questions by the three participant groups were similar, there were interesting nuances that provided an enriched set of findings for each research question and enhanced the overall understanding of the research objective.

6.2 RQ 1: Factors that influence digital adoption by employees in a South African bank

By exploring the factors influencing digital adoption by employees, this study joins the discourse on the micro-level understanding of digital transformation and contributes to the nascent literature focused on employee-related factors by providing a country and industry perspective.

Three interview questions were used to explore the factors. This first interview question sought to understand if there were differences in how the three participant groups understood the phenomenon of digital adoption. Some differences were noted between the groups; however, common themes were identified. The second question directly addressed the factors influencing adoption by employees, and the third explored the barriers to adoption. Responses from each participant group provided a multidimensional view, including perspectives relevant to the South African context and the effects of hybrid work resulting from the Covid-19 pandemic. Since there were overlaps in the factors acting as influencing adoption and acting as a barrier to adoption, findings and discussion for these questions were merged. The table below shows the factors identified and indicates which are presented as influencing factors, barriers, or both.

Factor	Influencing higher digital adoption	Barrier to digital adoption
Usefulness	✖	✖
Ease of use	✖	✖
Communication	✖	✖
Skills and training	✖	✖
Change management		✖
Fear		✖

Table 6.1: Overlapping factors for interview Questions 2 and 3

The fourth interview question explored how digital adoption by employees could be accelerated. Participants identified Culture, Technology and Change Management as accelerators and provided practical suggestions on how these factors could be leveraged.

The discussion that followed showed a high level of congruence between the views of participants in this study and the existing literature on digital transformation, digital adoption and change management. In some instances, themes identified by participants directly related to findings in the literature, while in other instances, input from participants helps to better understand how theory can be applied in practice. In some instances, themes identified from participant feedback may help to illuminate existing but not well-understood factors found in the literature.

6.3 RQ 2: Change management can influence employees to accelerate the adoption of digital technology

This study also discusses the role of change management in digital adoption, aiming to help change management practitioners and business leaders accelerate the pace of digital transformation in their organisations.

Two interview questions were used to explore this phenomenon. The first question explored whether change management supports digital adoption. While participants agreed that change management should support digital adoption in theory, it was also highlighted that the practice of change management in the bank is currently ineffective. This contradiction is also found in the literature and presents both a challenge and an opportunity for practitioners. The second question solicited input from participants on how change management can be improved to accelerate digital adoption. The findings align broadly with the Prosci 3-Phase Process (Table 5.1) and provide specific suggestions on how the practice can be enhanced within the bank.

6.4 Further insights

Although not explored in great detail, the discussion on the measurement of adoption, gamification and alternative technology tools provides considerations for change practitioners to explore further.

6.5 Limitations

Participants were all full-time employees of the bank, and the researcher needed to be cognisant of other work commitments and priorities when setting up and conducting interviews. Some interviews needed to be scheduled after working hours, and there was a slight degree of rescheduling that needed to be accommodated.

The researcher is an employee of the organisation and, as such, acknowledges that their own outlook, motivations, and experiences may result in bias during the research process. The researcher will be aware of this and apply reflectivity to counteract this limitation.

Generalisability may be a limitation of the study, given that it is a case study of one organisation.

Although the thematic analysis data strategy can provide rich thematic data, it can lack depth and transparency, and the findings can be subjective due to the nature of the qualitative case study.

6.6 Recommendations

This section with outline practical implications for business leaders and the organisation, managers, change practitioners and employees. It will also offer recommendations for further research.

6.6.1 Practical implications

6.6.1.1 Business Leaders and the Organisation

The evolution of frameworks reviewed in this study may help to educate and inform business leaders on the importance of the employee perspective in digital transformation. The discussion on change management in this paper is aimed at helping business leaders direct their change management time and resources towards accelerating digital adoption by employees, potentially helping to get a better return on their digital transformation investments. Business leaders should heed the call put forward by participants in this study to elevate the importance of change management, invest in it, and integrate it into technology change initiatives from initiation through to embedment. Culture is formed in the shadows of leaders; it is hoped that leaders acknowledge their role in setting the tone within the organisation and that their behaviour is observed by their followers, whether they know it or not.

6.6.1.2 Managers

Managers are encouraged to support employees through the change process closely. They play an essential role in providing employees with clear and consistent communication, understanding, overcoming personal barriers, and recognising and rewarding adoption. Their support and advocacy go a long way towards accelerating technology adoption.

6.6.1.3 Change Practitioners

Change practitioners can use the insights from this study to hone their craft and claim their role as accelerators of digital adoption. In addition, change practitioners are encouraged to use the findings in the factors influencing digital adoption and the practical suggestions in this study to tailor their approach to the people and contexts within which they operate.

6.6.1.4 Employees

By business leaders, managers, and change management practitioners having a better understanding of the factors that influence digital adoption, it is hoped that employees benefit from this study by experiencing a digital transformation process that increases their levels of engagement, enjoyment, and ultimately adoption of digital technology.

6.6.2 Future studies

It is suggested that similar studies are conducted in other banks and financial services institutions to test the findings and increase generalisability of the study.

6.7 Self-Reflection

As a full-time employee of the case site within which the study was conducted, the researcher was a colleague of the research participants. During the initial interview, the researcher found it slightly difficult to separate himself as a colleague and fully step into the role of researcher. Although this did not compromise the quality of the interview, it was a learning moment and a reminder that the impartial and objective nature of the role of a researcher is to gather the facts and report them, not to be agreeable or empathise with the participant. This became easier as the study progressed.

6.8 Probable contributions

It is hoped that this study will contribute to digital transformation literature by adding country and industry-specific findings to the pool of international research on the often-overlooked employee perspective of digital transformation. Additionally, the study may add further insight into understanding the construct of culture as a factor in digital transformation.

6.9 Summary

This study has shown that there are factors that influence digital adoption by employees in a South African Bank and that change management can help to accelerate the adoption of digital technology by employees. It has provided business leaders, managers, and change management practitioners with an understanding into the employee perspective of adoption. It has also offered practical steps on how change management can be improved to support digital adoption. It is hoped that these insights will help to foster an increase in the pace and impact of digital transformation in organisations.

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APPENDIX A - Semi-structured interview guide for Non-managerial Employees

1. In your view, what does digital adoption mean?
2. In your view, what are the factors that influence digital adoption?
3. In your view, what are the barriers to digital adoption?
4. In your opinion, does change management support digital adoption?
5. In your view, how can change management be improved to support digital adoption?
6. In your view, what can be done to accelerate digital adoption?

APPENDIX (B) - Semi-structured interview guide for Managers

1. In your view, what does digital adoption mean?
2. In your view, what are the factors that influence digital adoption by employees?
3. In your view, what are the barriers to digital adoption?
4. In your opinion, does change management support digital adoption?
5. In your view, how can change management be improved to support digital adoption?
6. In your view, what can be done to accelerate digital adoption?

APPENDIX (C) - Semi-structured interview guide for Change Management Practitioners

1. In your view, what does digital adoption mean?
2. In your view, what are the factors that influence digital adoption by employees?
3. In your view, what are the barriers to digital adoption?
4. In your opinion, does change management support digital adoption?
5. In your view, how can change management be improved to support digital adoption?
6. In your view, what can be done to accelerate digital adoption?

APPENDIX (D) - Participant Information Sheet

Dear Participant,

My name is JJ Benjamin, and I am a student at the Wits Business School, studying a Masters in Management, in the field of Digital Business. My research topic explores the factors influencing digital adoption by employees. The purpose of the research is to understand what the factors are influencing digital adoption by employees and how change management can be used to accelerate digital adoption.

I would like to invite you to take part in an interview. The purpose of the interview is to obtain your feedback on the factors influencing digital adoption and how change management can be used to accelerate digital adoption. The interview should take no more than 60 minutes of your time.

You will not receive payment or benefits from participating in this research, and there are no disadvantages or penalties for non-participation. Should you so wish, you can withdraw your participation from the interviews at any time. Should you experience distress or discomfort at any stage, you are welcome to remove yourself from the process.

I am available to answer any questions you may have regarding the research, and you are welcome to make contact with me via the details provided below. This research will be documented in the form of a written report which will be submitted to the Wits Graduate School of Business. Should you wish to receive a summary of the report, I will make one available to you.

Concerns or complaints regarding this study's ethical procedures can be directed to the University Human Research Ethics Committee (Non-Medical), telephone +27(0)11 717 1408, email Shaun.Schoeman@wits.ac.za.

Yours sincerely,

Student: JJ Benjamin
Email: 334222@students.wits.ac.za

Supervisor: Jenika Gobind
Email: jenika.gobind@wits.ac.za

Declaration and signature of Research Participant

The information contained in this document was explained to me by JJ Benjamin. I was given the opportunity to ask questions of clarification, and they were answered to my satisfaction. I understand that the interviews will be audio recorded. I hereby consent to participate in this research voluntarily, and I have been given a copy of this form.

Name of participant:

Signature: Date:

APPENDIX (E) - Organisational Consent

The Graduate School of Business
2 St David's Place, Parktown
Johannesburg, 2193, South Africa
PO Box 98, WITS, 2050
Website: www.wbs.ac.za

RE: PERMISSION FOR ORGANISATIONAL CONSENT TO CONDUCT A RESEARCH STUDY

Dear Sir / Madam

I would like to request permission to conduct my research study within your organisation. My name is JJ Benjamin, and I am a student at the Wits Business School, studying a Masters in Management, in the field of Digital Business.

My research topic explores the factors influencing digital adoption by employees. The purpose of the research is to understand what the factors are influencing digital adoption by employees and how change management can be used to accelerate digital adoption.

Research Title: **Accelerating digital adoption for employees in a South African Bank**
Research Supervisor: **Jenika Gobind**
Faculty: **Commerce, Law and Management**

The data collection process includes a 60-minute interview with 15 participants. The 15 participants include 5 employees who are not managers, 5 managers and 5 change management practitioners.

The interviews will be recorded on a digital device that will not be shared internally with the organisation in an effort to safeguard the identities of the participants and the information disclosed during the conversations. Participants are required to sign a consent form extending their permission for the sessions to be recorded. In line with the ethical standards of the university, confidentiality is a strict requirement of the research project. The recordings will be

stored on my personal hard drive and will be destroyed after I have graduated from the Masters' programme. In addition, the organisation will remain confidential in my research report.

Participants and the organisation will not receive payment or benefits from participating in this research, and there are no disadvantages or penalties for nonparticipation. Should participants experience distress or discomfort at any stage, you may withdraw the organisation's participation.

I am available to answer any questions you may have regarding the research, and you are welcome to contact me via the details provided below. This research will be documented in the form of a written report, which will be submitted to the Wits Graduate School of Business. Should you wish to receive a summary of the report, I will make one available to you.

Concerns or complaints regarding this study's ethical procedures can be directed to the University Human Research Ethics Committee (Non-Medical), telephone +27(0)11 717 1408, email Shaun.Schoeman@wits.ac.za.

Yours sincerely,

Student: JJ Benjamin
Email: 334222@students.wits.ac.za

Supervisor: Jenika Gobind
Email: jenika.gobind@wits.ac.za

Permission Granted

_____

On behalf of organization

APPENDIX (F) – Participant Feedback: Change Practitioners

		P1	P2	P3	P4	P5
Interview Questions	**Research Question**	**Change Practitioner 1**	**Change Practitioner 2**	**Change Practitioner 3**	**Change Practitioner 4**	**Change Practitioner 5**
Question 1: In your view what does digital adoption mean?	RQ 1: What are the factors that influence digital adoption by employees in a South African bank?	-During a digital transformation programme or something that's changing, employees need to start using the new platform -How well they use it -Understanding what can be done with the technology -Use the platform to its full extent	-A digital mind-set for doing things in a digital way -Usage does not always mean adoption -Just because people use the digital tech does not mean that they adopt it -95% mindset versus 5% technology -Adoption has two dimensions: >Intellectual – are our minds in it – do we understand the rationale >Emotional – are our hearts in it – do we believe it and feel it	-See the benefit of using the tech so that they adopt it a new kind of behaviour -Understand why it is going to be good for them -Benefit for them to be digitally savvy -Colleagues; Identify and utilise digital engagement tools; Know the functionality or ways of engaging; If you are digitally savvy you will know the benefits -If don't know how -Will and curiosity	-Those who are required to go through a change are informed and aware of the tools, technology that is available to perform their duties	-The proficient use of existing and new technology within the business ecosystem -Using it such a way that it achieves the maximize outputs or outcomes desired -Interactions of humans with technology -Utilisation -Application
Question 2: In your view what are the factors that influence digital adoption by employees?	RQ 1: What are the factors that influence digital adoption by employees in a South African bank?	-Age group and tenure perspective; How comfortable are the users with digital technology; Colleagues with long tenure may be used to doing things a certain way -Fearful of something new, might not get it right, scared to break something -Investing time train people, walk them through it -Ease of use	-Recognise that adoption is multidimensional: >Intellectual – are our minds in it – do we understand the rationale >Emotional – are our hearts in it – do we believe it and feel it -Understanding what's in it for me -How was the change to digital managed – did they have a choice or forced. If there is choice then people are more likely to adopt. Choice is related to control. How much control do they have over it. If you take away choice you take away control and this increases resistance -Follow change management principles - ADKAR -Address the fear of the unknown	-Fusion curve – how people adopt different things oEarly monitory oInnovators oLate majority oLaggards -Knowledge -Curiosity -Being interested -Understand what it is and what it means -What's in for them	-What's in for me -Why use the system -Alternatives, if no alternatives then you are forced to adopt -What's in for me -Integral to day-to-day existence -No alternatives -Reminders to perform certain functions	-Understanding the why -What's in it for me -Usefulness -User experience -Ease of use – less easy is more difficult -Previous experience – poor past experience makes it more difficult to adopt -Perceptions -Leader led -Peer influence – their colleague is doing well using the technology then they will want it to use it too - Colleague feedback amongst each other -Option to opt out, use old system, old ways of doing things
Question 3: In your view what are the barriers to digital adoption?	RQ 1: What are the factors that influence digital adoption by employees in a South African bank?	-Age grouping, comfort with the technology -Used to doing things a certain way and therefore resistance to change -Working from home versus face to face – in respect to delivering change to drive adoption -Availability of employees – in respect to delivering change initiatives to drive adoption	-Fear of change and fear of the unknown is universal but is exacerbated in the digital realm -Fear of technology – related own competence -Perception of it being tedious	-Familiarity -Ease of use -User experience – frustrating or easy and logical -Difficulty in navigating -Lack of knowledge oWhat's in it for me oHow to use it -Generational/age may be an adoption barrier -Perceptions -Misinformation	-Noise in the system – amount of content -Consistent subtle messaging to encourage adoption -Adoption is not engrained in culture -Filter out stuff not immediately applicable -Long lasting change -Cant find 'how to' guides – unlikely to adopt -If not critical success factor I may not adopt immediately -Frustrating the user – cant find the link, buffering oWhat is the purpose of the platform – listen and engage – if I cant do that the technology has failed	-Change fatigue – change load – capacity to take on change – need to prioritise -Lack of adequate upskilling to enable employees -Is the technology working efficiently and effectively? -Trust – do I trust the technology – build a change story – minimise surprises -Not leader led -Supporting structure – in person influencers, change agents -Budget – time and money for enablement activities
Question 4: In your opinion does change management support digital adoption?	RQ 2: Can change management influence employees to accelerate the adoption of digital technology?	-Change management helps to take away fear -Create awareness, creating comfort, create excitement -Get support and buy-in -Strong communication programme is imperative -Ongoing and consistent messaging – up to 7 times -Needs analysis	-Change management helps address barriers -Change hearts and minds -Increase intellectual and emotional adoption -Address the human behaviour related to change	-People centred focus approach vs a technical implementation approach -Understanding stakeholder groups -Critical to implementing a digital solution -The digital solution must solve something for them, it must be better than the status quo	-Change commitment curve – Awareness, Understanding, Perception, Buy-in, Ownership -Making sure that if adoption is required, create awareness, understanding (personal and general), Tools, ownership (don't revert to previous ways) -Example, moving Townhalls from MS Teams to Workplace oDropoff may come from technology letting us down oOrganisation has succeeded in Awareness, Understanding and Tool, but let down Ownership oWhat is the purpose of the platform – listen and engage – if I cant do that the technology has failed	-Closely intertwined -Change management are the processes and tools used to move individuals from current to desired state – it is the means by which we achieve digital adoption -Change management enables digital adoption
Question 5: In your view, how can change management be improved to support digital adoption?	RQ 2: Can change management influence employees to accelerate the adoption of digital technology?	-Recognition of early adopters to encourage further adoption -Keep excitement going through competition make it fun, give prizes -Get people involved and be part of the change process -Make it enticing to change	-Analogies, Story-telling to ease the fear -Change managers are also new to digital transformation – the change managers becoming more digitally savvy in order to sell the idea that its ok	-Demonstrate to people that their lives will be better off with the digital solution -Link to organisational strategy and big context – why are we doing this -Must be a deliberate purpose approach and strategy for the specific solution adoption and embedment -Supported by leaders and senior stakeholders and sponsors -Statement of intent from senior leaders endorsing technology and change -Managerial support – middle managers must walk the talk, encourage provide support get in SMEs -Use the excited people to leverage change and influence others to adopt -Create a change network/change agents to influence others -Own people, colleagues and peers are more powerful than external influence	-Elevate the prominence of change management – don't need to ask for a seat at the table -Just as Business won't proceed without an architecture diagram for technology, so to should we not proceed without an understanding of how the human aspect will be handled to maximise adoption – -Understand who are early adopters – find out what made them adopt, use insight to drive mass adoption -Bite sized info, but more than once-off -It needs to be pervasive in the audience mind -Rely too much on the Change Management Team – big part of the leadership's responsibility -Don't dumb it down -Its not a nice to have -Utilisation, proficiency and adoption – lag indicators, too late -Measure as we go -Lead indicators – commitment from management, sharing of information, leveraging change agents, effectiveness of change agents, proactive measurement of end users of change agents given the role they play, relative to where you are in the implementation -Its serious but fun	-Colleague experience – maximise insights and institutional knowledge -Happy colleague = happy customer -Tailor interventions taking into account colleague insights -Future fitting colleagues -Partnership experience between colleague and organisation – mutual benefit -Change course if we have to
Question 6: In your view what can be done to accelerate digital adoption?	RQ 1: What are the factors that influence digital adoption by employees in a South African bank?	-All of the above -Get change management involved at the beginning of development -Allocate a change management budget at business case stage -Give the change manager time to adopt, figure it out and craft plan -Start socialisation early - Gamification to drive adoption Keeping abreast and up-to-date with change management practices	-Must go through the change curve -Narrow the depth of the valley of despair – provide enough info, allow questions, experiment and play, psycho safety to say I don't know/I'm worried/tell me more -In order to digitally transform, focus on: Culture, Change mindsets, Change the way we learn	-Identify the target percentage of adoption -Identify current state -Create multiple and frequent interventions and engagements with those that need to adopt -People adopt at their own pace -Create Awareness, commitment and knowledge, make time -Allow Practice and experience -Feedback loops to identify gaps	-Depend on system and why -Be clear on the why -First impressions count -Ensure first experiences are seamless and positive -Even if my role depends on it, but I have a negative experience, my perception -First experiences must be impactful -Ensure the technology fulfils its purpose and objectives (BIC Pen) Metaverse in the context of change management - AR/VR – how do we leverage these technologies in driving digital adoption, or adoption in general - Gamification to metaverse – translate to use these new technologies to bring the change to life Supplement traditional methods and tools with emerging technology Traditional face-to-face vs traditional digital vs emerging digital	-Review colleague capacity and appetite to accept change -Prioritising – what should be done -Making trade-offs – when can it be done -Integrated view oHelp colleagues to focus, what to expect, their role -User friendliness -Make time and space for colleagues to adopt -Measure and test success

APPENDIX (F) – Participant Feedback: Managers

		P6	P7	P8	P9	P10
Interview Questions	**Research Question**	**Manager 1**	**Manager 2**	**Manager 3**	**Manager 4**	**Manager 5**
Question 1: In your view what does digital adoption mean?	RQ 1: What are the factors that influence digital adoption by employees in a South African bank?	Its basically when people must learn or are currently learning how to make use of new digital channels for services, or technology , so that maximum benefit can be derived from it . Its about adapting to how things can get done better in the new tech age. Its more about humans than technology actually. Its about the ability of humans to start operating in a digital era.	-An orgs ability to extract full value from digital capabilities -Utilisation of capabilities by the majority of employees -Level of interact with digital capabilities – how much they use	-Ability to embrace technological ways of work as opposed to traditional or manual ways of work -Stay on the cusp on advancement of ways of work -Digital adoption in the work context to deliver value to customers – digital alternative channels, registration in digital products -Digital adoption by colleagues – adopting and using the channels, tools of trade; metrics are usage, logins, utilisation of tools	-Utilising the platforms or technology -See the benefit oCost saving oTime saving oEase of use -Early adopters – see the benefit -Resistance – fear, lack of understanding, want to do it how I have always done it -Need to show the benefit -Do I need to use it on a regular basis	-Using digital platforms -Doing things in an automated way -New ways of working
Question 2: In your view what are the factors that influence digital adoption by employees?	RQ 1: What are the factors that influence digital adoption by employees in a South African bank?	Culture is important, Customers needs and Organisation Strategy, Employees mindset and attitude , how much of engagement and training and support there is. Also, Is digital being offered as an option, alternative or mandatory. Incentives and making employees more employable is also a driving factor.	-Technology integrated into the colleague journey – how easy is it for the colleague to navigate and use the technology -Usability and ease of use of the digital asset -End user experience -Intuitiveness and intelligence of the digital asset -Frequency at which colleague are required to engage with the digital capability -Can the employee extract value	-Readiness for the technology -Segments are split -Lubricants and blockers -Age and Tenure plays a role – systems and ways of work accustomed to, tend to struggle, challenges mental model, fear of being replaced, resistance, silent or passive resistance -Millennials and Gen Z – come with digital readiness, innovation comes easy, first adopters, digital natives, easier to align with digital agenda goals. Break in the process is when tech is not ready, may lead to resistance, idealism does not match reality of system capabilities -Younger show willingness to assist older colleagues - Older colleagues take motivation	-See the benefit oCost saving oTime saving oEase of use -Integrity of the data -Trust in the system -Appropriateness of the technology to do my job -Is the individual ready for technology (high technology)	-Computer skills -Different generations, some may struggle with technology -Digitally savvy -Enabling colleagues to adopt digital technology, through platforms, resources tools, training, software, licenses, hardware such as laptops to sign from home, internet connectivity
Question 3: In your view what are the barriers to digital adoption?	RQ 1: What are the factors that influence digital adoption by employees in a South African bank?	Systems availability, Bandwidth Technology perceived as a means to reduce workforce numbers Sustainability of the digital technology and reliability. Org Culture and change management not supporting employees.	-Accessibility to the system, access to devices – can only access technology at the office in front of desktop -Affordability of data of access on mobile - zero rating bank applications -Technology that is not mobile first -Ineffective change management journey -Lack of intuitiveness of the digital asset -Poor end user design of the asset	-Lack of access to internet and smart phones -Psychological barrier, Job security, "will I be replaced" -Tech barrier, System stability, system downtime, revert to manual process	-System stability - downtime made their jobs more difficult -Mistrust -Hardware specification – can it do what it needs to do -How relevant is it to me and my needs -Does it give me the desired outcome -Generation may not be an issue, rather needs of the life stage is the driver	-Fear of the unknown, Older generations may be slow to adopt -Company red tape slowed down the enablement of colleagues -Access to internet connectivity, data, hardware
Question 4: In your opinion does change management support digital adoption?	RQ 2: Can change management influence employees to accelerate the adoption of digital technology?	Yes, it should. It's a pre and post requisite. Because a big portion of the barriers are due to human resistance initially.	-Yes, change management is meant to drive digital adoption -The application in the bank is not as effective as it should be -Change journey and communication is not effective -Digital adoption is directly dependent on change management -If you do not facilitate the colleague journey through a change effort, clear line of sight about why, then it is not likely that the colleague will find value and will not adopt the system -Infuse the change effort from the beginning of the technology development -Invest in change management to drive adoption in a commensurate way to the invest in technology	-Yes, it is a key driver -We don't do enough work to get colleagues over the line -Communication is key The concepts are intertwined -Rapid pace of technological change requires us to rescript -Digital adoption requires changing the way you work -Getting through the change curve quicker will lead to greater adoption -Rescript	-No, we take a general approach -We design change management for the general population -We don't have enough focus on digital adoption -You may miss the nuances of certain segments of the population -Some will need more or less, depending on their needs -Don't spend enough time on change management - Huge dependency – digital adoption relies on change management, from design to implementation -Some segments of the population will need more or less change management, depending on tehri characteristics -Change management must be tailored to the technology and adoption required -Use early adopters to inform the change management process, which in turn will drive higher adoption -If the first experience is poor you will spend more time and money to get the adoption higher	-Definitely -Without proper change management it will be difficult to drive adoption -Comfort zone – become reluctant change -Need to support colleagues -There will be no digital adoption without proper change management -Lack of understanding of human beings will lead to lower or longer time to adopt -A strong colleague experience will make it easier for us to progress; how we implement change influences colleague experience, which impacts adoption
Question 5: In your view, how can change management be improved to support digital adoption?	RQ 2: Can change management influence employees to accelerate the adoption of digital technology?	Make learning practical for people . And customers. People want to become more employable, Formulate accreditations for change management programs, it will motivate because people get to put that on their cvs.	-Give context and understand why -Zero-rating applications – colleagues can access on their own devices -Intuitive systems and processes that prompt user about new functionality -Change management should be designed for the lowest denominator – your most junior colleague. Make the assumption that digital literacy is basic – change journey must be geared to ensure that the colleagues with the most basic literacy understands the technology -Solve for the 70% to 80% -Demonstrate how the technology makes the life of the colleague easier – simply life and processes to get to end goal -Change solutions should not be vanilla – needs customised journey	-Enhance colleague narrative – get colleagues over the line, what's in it for me, what's under the iceberg, what am I afraid of -Help colleagues understand the why -Check personal barriers -Communication and hand holding related to address personal resistance -As the colleague base shifts -Dynamic and iterative	-What digital adoption are we driving? -Who needs to adopt and what are their characteristics -We need understand the induvial needs and resistance to colleagues -Do an assessment to understand the needs and skills levels of the population relative to what tech needs to be adopted -Customise approach - Different journeys for different people or segments of the population -Cant do it once or twice, needs reinforcement	-Training – ability to adopt -Why the change is needed and the benefits -Test -Pilot with a group – gain insights, fine tune, then implement
Question 6: In your view what can be done to accelerate digital adoption?	RQ 1: What are the factors that influence digital adoption by employees in a South African bank?	- Make digital options are easy and painless to subscribe to. - Include training on digital in onboarding. Don't use stats and figures to threaten people on performance and targets. Develop professional roles for people to aspire to in the development and execution of digital channels. - Incentives to accelerate adoption - make it part of the Employee Value Proposition	-Elevate the importance of change management -Accessibility of devices – need to use the Banks devices or their own -Accessibility to infrastructure – ability to access technology based on where employees live. MS team example: some colleagues needed data packages; some colleagues needed alternate power supplies -Affordability – make consumption of digital capabilities affordable by zero-rating apps -Force adoption by taking away all other options (e.g. MS Teams use during Covid – we had no choice) -Zero-rate work applications to overcome affordability barrier Customise change journeys	-Rapid pace of technological change requires us to rescript how we approach change management -Has change management practice advanced and kept pace with the rate of technological change -Change practices may be stuck in the old mode or models -Focus on quality not quantity – asking the right questions lead to quality conversations lead to quality relationships and those create quality result -Segmenting the employees to customise journeys - Danger of being an SME – we stop learning, because we think we have all the answers	-Ensure the relevance of technology to the needs of the business -Test thoroughly before implementing - -Assess the longevity and agility of the tool – how long will the system suit the need, can it be upgraded or updated as the business need changes -Integrate systems to make it simpler and easier to be agile -Take the end user through the change journey oUnderstand and see and experience the benefits oCapability and skills to use the technology oEmpower them with the tools and hardware to use the technology - Incentivise digital adoption to extract the full benefit of the technology	-Research into whether the technology will work for organisation and strategic ambitions -Gaining feedback from colleagues on what should be focused on or how it should be fixed. Encourage innovation and co-creation. Trust that they have the answer. -Engaging customers through customer forums – understand what will work best for them and then build technology to support

APPENDIX (F) – Participant Feedback: Non-managerial Employees

		P11	P12	P13	P14	P15
Interview Questions	**Research Question**	**Non-Managerial Employee 1**	**Non-Managerial Employee 2**	**Non-Managerial Employee 3**	**Non-Managerial Employee 4**	**Non-Managerial Employee 5**
Question 1: In your view what does digital adoption mean?	RQ 1: What are the factors that influence digital adoption by employees in a South African bank?	-Moving away from face-to-face interaction to utilising technology -Implementing technology initiatives -Measure the effectiveness of implementation -Participation rate -Easier to do things	-Moving with the times and technology -Staying relevant -How technology is adopted -Automating without losing the employee perspective -Employees oOpen-mindedness to technology oDoing things differently oUnlearning and re-learning oUsing the system	-Bring in new software or technology -Do things in a new automated way -Automating reports -Using the system	-Finding tech that works for your organisation -Buy in -Getting the technology in -Getting people buy in and understand the need -Utilisation	-Use of new technology -How effectively is the user using the technology -Using tech in the right way to get the right results
Question 2: In your view what are the factors that influence digital adoption by employees?	RQ 1: What are the factors that influence digital adoption by employees in a South African bank?	-Covid – being forced to use technology -Being able to stay connected -Always on access -Ease of use	-Information -Understanding the why -Communication -Transparency -What we are hoping to shift -Giving the facts -Taking colleagues on the journey -Not a shock -Progressive communication, at the beginning, middle and end -Change management – meaningful change management, not just email, human factor -Localise understanding, don't leave it a high level -What does it mean for me, the organisation	-Training -Change management -Communication -Understanding benefits -How it makes my life easier -How does it help me do my job -Having the right tools	-Communication -Understand the need -Understand End to end process -Impact and benefit -What's in it for me oPerform oHelp the customer -Understand the connection between the technology and the intended outcome -Skills gap analysis before bringing in the tech -Provide upskilling before implementing the tech -Remember the human at the heart, technology must make life easier. Help them understand the benefit and how it will make life easier	-People *If the individual has the right mindset and attitude *If the user feels a threat or there will not add value, there will be resistance *If the user feels the technology will be useful and make a difference in their life then there will be greater adoption -Culture oEnvironment surrounding the user oContinuous learning oAdapt quickly oRewarding adoption
Question 3: In your view what are the barriers to digital adoption?	RQ 1: What are the factors that influence digital adoption by employees in a South African bank?	-Poor socialisation and change management -Not understanding how this will impact me -Poor implementation of plan -Poor messaging and communication -Insufficient time set aside to implement the plan -Not understanding how to use the technology -Insufficient knowledge transfer and upskilling	-Lack of understanding – makes me hesitant -What's in it for me -Job security -Ease of use -Integration of systems -Assumptions – lack of understanding and communication, survival in uncertainty -Different people in different stages -Detractors could slow down adoption, especially is their voices are loud	-Alternatives – people will revert to what they are comfortable with -Bank not being bold enough to switching off old systems -Lack training -Lack change management -Lack of communication -Lack of preparation -Lack of tools -Lack of time -Employee resistance oJob security oFear	-Skills – If I don't know how, then I wont -Ease of use -Understanding return on investment/why we are doing this -Seeing the benefit	-Culture must support and encourage digital adoption -Misalignment with organisational policies and processes and the technology – users revert to old ways of work -Too much happening at the same time – what is the change and where to place focus -Lack of support from managers
Question 4: In your opinion does change management support digital adoption?	RQ 2: Can change management influence employees to accelerate the adoption of digital technology?	-Yes -Need an end-to-end plan to implement the change or drive adoption -Provide end users with the ability to engage with the technology -Use insights from end users to craft a compelling message -Highlight the benefits for end users -Assess the performance of the change management process – enhance if required	-Yes, critically important -We get it wrong – once off, tick box -Understanding the end creates a sense of ownership which makes adoption go further -Messaging is critical – creates ownership -Must be done at a local level -Not just a project management level	-Yes – digital transformation requires a focus on technology and people -Currently we only train people -We do not support people through the change process	-It is imperative, it is at the heart of digital adoption - Not currently supported well. Change management is currently an after through -Needs more forethought and design thinking -Understand the end user -Help them understand the why -Engage with employees and help them through the process -Prototype and feedback -Implement	-To a certain extent -Change only goes so far as K in ADKAR -Awareness, knowledge transfer and skills are there -We do not do well at embedment, checking effective use -Not measuring return on investment -We know the system is being used but how effectively is it being used
Question 5: In your view, how can change management be improved to support digital adoption?	RQ 2: Can change management influence employees to accelerate the adoption of digital technology?	-Provide end users with the ability to engage with the technology -Use insights from end users to craft a compelling message -Highlight the benefits for end users -Assess the performance of the change management process – enhance if required -Have knowledge articles and user guides -Change agents must engage with end-users -Have pop-ups to assist end users and drive adoption at key stages	-Understanding the end creates a sense of ownership which makes adoption go further -Include end users and those closer to the use of technology upfront to understand potential issues and concerns -Communication -Understanding the why and what's in for me	-Help people to overcome resistance and embrace the new way of working -Support people through the change process -Demonstrate the benefits oHow does it make my life easier oHow does it make things better -Understand what other changes are happening in people's work lives and cater for that -Prepare people for the future work environment oEliminate employee resistance to change oHow does it work oWhat must the employee do -Invest in education and training -Encourage ongoing usage by the employee -Leaders must set the guidelines, encourage employees to embrace the change -Leaders must be transparent about the changes and what it means for colleagues	-Needs more forethought and design thinking -Understand the end user -Help them understand the why -Engage with employees and help them through the process -Prototype and feedback -Implement -People that locate the tech must engage with the end users – partnership	-More focus on the adoption and outcomes -More time on embedment -Measure effectiveness -Don't just look at reports, engage with users through deep dives and focus groups post implementation to understand what is working well and what is not working well -What is stopping users from making full use of the tech and what are their suggestions on how to improve the technology and the approach used to launch the technology -Overcome barriers
Question 6: In your view what can be done to accelerate digital adoption?	RQ 1: What are the factors that influence digital adoption by employees in a South African bank?	-Find the right technology to implement - Make sure the technology is relevant for the South African context (don't just rely on technology that works elsewhere in the world) -Support employees during the technology adoption process -Digital adoption must be integrated in the culture narrative of the organisation -Adoption will take time -Listen to the feedback from employees - Have solution driven discussions -Colleague experience is directly related to customer experience	-Inclusion of end users and key stakeholders -Progressive communication oWhere are we going and why -give opportunities to voice concerns – they become more comfortable with the change -Fun and vibe around the adoption -Healthy competition – pitch teams against each other, leader board, utilisation -Nothing should be a point on its own – integrate everything, make the links to the strategy, reinforce why we are doing this and how this will make us a better business	-Be brave and make decisions to switch off old systems in favour of new systems or functionality -Elevate the status of change management function – explain the value and demonstrate value	-It is going to happen one way or the other -We have to keep up -Need oGood leaders oUnderstand what technology exists oUnderstand what competitors are doing oDigital Culture oValues and behavours to drive digital -Need two way approach – Leader-led and engagement by employees	-Involve users upfront – get representatives to shape the approach the approach, support and coach others -Provide support once a system is implemented -Easier for user to engage with peers -We cant slow down but we need to follow a scaled approach. Make sure that technology and changes work before bringing in new changes or technology