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JOHANNESBURG



Research Paper

Understanding successful implementation of Digital Transformation in a South African retail organization

Submitted by:

***Tshisevhe Nnzeru** (331140)*

Date: 07 August 2023

Supervisor: Dr Suzanne Sackstein

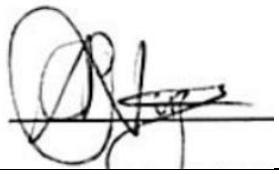
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Acknowledgements

This research is dedicated to my amazing son and life assistant Tintswalo Nnzeru and munghana Thabiso Monare who not only fell seriously ill but got into unfortunate tragic circumstances and could not cheer me on this journey.

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Munghana ndi khou nwala hafha ndi sa divhi uri u hani, fhedzi ha Mudzimu ndi muhulwane. Tshe vha mu disela tshone vhutshiloni hanga tshi kha di do vhonala. Naho zwithu ndi tshi khou nwala zwi tshi khou konda thama ndi vha ndo mu humbula misi yothe na dzi Nare dzothe. Ndi a mufuna nga lufuno lwa Mudzimu munghana ende ndi na fulufhelo uri ene u dovha right hu si kale fhedzi ha azwi divhe uri vhukonani hawe ho disa zwinzhisa kha nne.

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ABSTRACT

Digital Transformation is at the heart of the Fourth Industrial Revolution and much of the research claims that an organization's success is increasingly dependent on their ability to exploit DT with the e-Commerce industry being significant globally. While South Africa's digital transformation is materially behind developed nations, retailers are gearing up for growth by digitally transforming their operations, not only to compete but remain relevant. Therefore, this research seeks to understand the successful implementation of Digital Transformation in a South African retail context. The Technology, Organization and Environment Framework was selected as the theoretical framework to guide the research design and interpret findings. The research question for the study is *What does successful DT implementation in a SA retail organization entail?* To answer this research question, an interpretivist qualitative, case study research design was employed. Data from a retailer undergoing Digital Transformation was collected through ten semi-structured interviews using an Interview guide and analyzed using Content analysis method. Findings reveal that Digital Transformation is not about Technology, it is organizational transformation encompassing transformational leadership, strategy development and implementation aligned with overall business strategy, technology as an enabler for transformation, empowerment of the workforce with digital skills and a conducive digital culture characterized by learning, change, innovation and adaptability. Findings also indicate that the added complexities of legacy environments cannot be underestimated for traditional brick-and-mortar retailers. In essence, DT is about people embracing change – not technology. As limited research has been conducted and published regarding the South African retail DT context, these findings contribute to the limited existing knowledge base with empirical findings, specifically, contributing important knowledge on what specific aspects need to be considered and accounted for when conducting DT and proved TOE Framework to be useful for understanding large digital disruption. For practitioners this research contributes a holistic approach to implementing DT beyond technology which includes transformational leadership, Digital Transformation Strategy development and alignment with overall business strategy, empowering people with digital skills and a digitally enabled culture with digital technology as an enabler for Digital Transformation. Furthermore, to be successful with Digital Transformation, it becomes essential for organizations to manage the added complexities of legacy environments and lastly, for entrenched workforces to realize that Digital Transformation is a necessity for business survival and adapt.

Keywords

Adaptability, Agility, Digital Transformation, e-Commerce, digital technologies, digital workplace skills, digital workplace culture, Fulfillment, Hermeneutic, Omni-channel, online retail, DT leadership, DT strategy, Technology, Organization and Environment Model, Technology

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List of Acronyms

CF	Conceptual Framework
DOI	Diffusion of Innovation
DT	Digital Transformation
e-Business	Electronic Business
e-Commerce	Electronic Commerce
e-Health	Electronic Health
e-Government	Electronic Government
e-readiness	Electronic readiness
ERP	Enterprise Relational Planning
INT	Institutional Theory
IoT	Internet of Things
PEOU	Perceived Ease of Use
PU	Perceived Usefulness
SA	South Africa
TAM	Technology Acceptance Model
TOE	Technology, Organization and Environment Framework
TPB	Theory of Planned Behaviour
TRA	Theory of Reasoned Action

1 INTRODUCTION

1.1 Background

According to Banda (2021) and Mahmood, Khan and Khan (2019), Digital Transformation (DT) occurs when organizations include digital technologies in their product offerings, strategy development and business processes to improve their competitive advantage by bettering their customer service and interaction with their workforce. Gurbaxani and Dunkle (2019) extend the definition to include the vision, structures, capabilities and organizational culture needed to stay abreast of the new, evolving and compelling business digital landscape. While organizations may undertake DT for different reasons, according to Banda (2021), Eden, Casey, Burton-Jones and Draheim (2019) and Gurbaxani and Dunkle (2019) the most common reasons are to improve customer experience, become more agile, increase speed of innovation, reduce operating costs, increase competitiveness and people performance.

According to Mugge, Abbu, Michaelis, Kwiatkowski and Gudergan (2020) and Teichert (2019), DT is not a once-off process, rather is an ongoing progression of transformation enabled by digital capabilities with technology implementation being only the beginning. According to Kane (2019), a DT approach that focuses only on digital capabilities is unlikely to succeed as organization wide transformation that involves leadership (Kazim, 2019; Sainger 2018), strategy development (Eden et al., 2019; Mahmood et al, 2019), workforce transformation (Eden et al. 2019) and a culture shift (Gurbaxani & Dunkle, 2019) are also required.

Gurbaxani and Dunkle (2019) argue that successful implementation of DT is a concern for organizational leaders globally. Mahmood et al. (2019) contend that as DT is complex and riddled with ambiguity, many challenges and unexpected tasks can occur, which often results in staggering failure rates with more than 60% of DT programmes not delivering on benefits promised (Correani, De Massis, Frattini, Petruzzelli & Natalicchio, 2020; Wilcocks, 2021). Kazim (2019) claims these high failure rates limit the potential benefits that DT can offer. To counter these concerns, Gurbaxani and Dunkle (2019) propose organizations need a DT framework that broadly covers the strategy, technology, workforce and culture aspects, so that organization wide transformation efforts can be managed.

According to Mahmood et al. (2019), Kokolek, Jakovic, and Curlin (2019) and Teichert (2019) the importance of implementing DT successfully to unlock competitive advantage is reflected by top-quality journals calling for papers which demonstrate an interest in the subject. Furthermore, Gurbaxani and Dunkle (2019) contend DT is crucial as it enables organizations to survive in this digital era where DT is a source of competitiveness.

Technology developments are influencing the way economies function and e-Commerce is one important component of the wider economy's DT which impacts on how businesses operate (Goga et al., 2019). According to Mubako (2017), increasing customer expectations, globalization and consolidation together with declining economic prospects are pressurizing retailers to reconsider their operating models with DT being considered

as a crucial path to remaining competitive. While the rising middle class on the African continent is creating an opportunity for retailers to leverage new digital markets as means to respond to market changes and stay competitive in this digital era, South African (SA) retailers have been slow to digitally transform their operations, with only 43.9% of large conglomerates in SA planning to have a digitally centred enterprise strategy (Mubako, 2017). Mubako (2017, 2017b) claims within the SA retail industry there is also a scarcity of theoretical and empirical research with merely two papers for DT in the retail context.

Retail involves the sale of products for household consumption (Masojata, 2022) and this research focussed on general merchandise which is multi-product category (Goga, Paelo & Nyamwena, 2019). Mubako (2017, 2017b) and Goga et al. (2019) contend that even though the SA online retail market has been slow in comparison to its western counterparts, there are still opportunities for SA retailers to leverage the benefits thereof through implementing DT successfully. According to Mubako (2017, 2017b), it is imperative for executives to leverage DT to deliver more value in their businesses, to build digital enterprises in the process and avoid the rising financial losses due to the inability to compete in the digital marketplace. Goga et al. (2019) claim that even though traditional challenges such as high data prices, poor quality internet and poor delivery services - which make up the backbone of online retailing - have improved, cost of delivery, trust issues with online payments and entrenched physical shopping habits are still major issues behind lagging online retail growth (Goga et al., 2019; Masojata, 2022). However, according to Goga et al. (2019), these barriers are improving with better internet speeds, increased mobile penetration and mobile device based shopping thus making way for better growth. Furthermore, adoption of smartphones, increased use of data and expanding omni-channel approaches are aiding growth (Accenture, 2019).

1.2 Research Problem

The growth of retail business is expected to be generated online (Goga et al., 2019). According to Mubako (2017), retailers need to respond with new management requirements, capabilities and responsiveness so that digital enterprises can be built to enable competitiveness in the digital market place. The DT market in the retail sector, also commonly known as e-Commerce or online retail, is estimated to grow globally by $137.05 billion during 2021-2025, progressing at a Compound Annual Growth Rate (CAGR) of almost 17% in this period (Nasdaq, 2021). In SA, the retail industry accounts for approximately 15% of the Gross Domestic Product (StatsSA, 2018) with online retail merely accounting for approximately 4% (Business Inside SA, 2021), which is materially behind developed nations whose online retail contributes up to 20% (Goga et al., 2019). Despite the small contribution currently being made by online retail in SA, Goga et al. (2019) claim that at an estimated grow rate of 20-35%, expected to grow at CAGR of 15.4% in 2020 alone (Accenture, 2019), the growth far exceeds traditional brick-and-mortar retail. This growth represents an important and growing industry sector not only worldwide but also in SA where there is a notable trend of online retail making gains at the expense of traditional brick-and-mortar (Business Inside SA, 2021) accompanied by a growing dependence on digital

platforms and the data they provide (Goga et al., 2019). Yet, even with this growth potential, SA's infrastructure, traditional shopping habits and slow DT by retailers has inhibited growth (Goga et al., 2019; Mubako, 2017).

The scarcity of knowledge in retail (Mubako 2017, 2017b) is another problem, with only two papers available in SA retail context specifically. While Dyk and Belle (2019) and Ferreira, Moreira, Pereira and Durã (2020) focus on understanding DT in a South African context, Dyk and Belle (2019) seek to understand DT phenomenon only in relation to available digital technologies and Ferreira et al. (2020) present an analysis of key digital technologies for retail DT, they do not seek to understand DT holistically.

According to Mahmood et al. (2019) and Vey, Fandel-Meyer, Zipp and Schneider (2017), while DT is fundamental for the realization of the Fourth Industrial Revolution (4IR), many unsuccessful implementations exist. Kazim (2019) and Wilcocks (2021) argue that organizations are failing to attain benefits as DT is not only complex to implement but also challenging with respect to the workforce, processes and technology (Mahmood et al., 2019) as well costly (Correani et al., 2020). Therefore, to assist organizations in successfully implementing DT so that they reap the related benefits and remain competitive in the digital economy, it is important to understand the successful implementation of DT in the SA retail context.

1.3 Purpose of the study

DT is the cornerstone of competitiveness in this digital era (Gurbaxani & Dunkle, 2019) and with online retail projected to provide double digit growth (Goga et al., 2019) at the expense of traditional brick-and-mortar retail (Goga et al., 2019), it is crucial that retail organizations digitally transform in order to remain relevant (Mubako, 2017). Therefore, this research aims to understand successful implementation of DT in a SA retail organization.

1.4 Research Questions

As this research aims to understand successful implementation of DT in a SA retail organization, the main research question is *What does successful DT implementation in a SA retail organization entail?* To answer the main research question, the following sub-questions have been formulated:

1. What digital technologies are implemented in a retail DT and how do these influence DT?
2. How does the organizational context influence retail DT implementations?
3. How does the environment context influence DT?

1.5 Intended contribution of the study

The research aims to utilise the insights obtained to develop recommendations to assist practitioners in successfully carrying out DT. Furthermore, as limited research has been conducted and published regarding the South African retail context, the research aims to contribute to the knowledge base through carrying out an

empirical study underpinned by a theoretical framework to understand DT as an organization wide transformation process.

1.6 Delimitations of the study

This research focused on one large general merchandise retail organization in SA, a traditional brick-and-mortar retailer in the process of DT. In addition, the organizational contexts identified in the literature were assessed.

2 LITERATURE REVIEW

This section first describes the literature review method adopted, then outlines the applicable steps and presents the literature search process. Thereafter, the relevant literature reviewed in relation to DT is presented, with each of the common themes being detailed.

2.1 Hermeneutic Method

Literature reviews scrutinize and critically assess existing bodies of knowledge, in this research the DT domain, with the aim of providing a basis to outline areas of weakness and a poorly understood phenomena (Boell & Cecez-Kecmanovic, 2014). Additionally, Boell and Cecez-Kecmanovic (2014) define literature reviews as a means of enabling problematization of assumptions and theoretical claims in an existing body of knowledge, to help formulate research problems or research questions. The research adopted the hermeneutic method for the literature review, as this allows for incremental development of understanding with knowledge being acquired throughout the iterative process (Boell & Cecez-Kecmanovic, 2010; Geeling, Brown & Weimann, 2016).

Geeling et al. (2016) state that to develop understanding, there needs to be harmony between the whole and its parts. Thus, the hermeneutic circle looks at the parts of the whole in the context of the whole and similarly looks at the whole part in the context of the sum of its parts (Boell & Cecez-Kecmanovic, 2010; Geeling et al., 2016). Understanding the whole is achieved through reading, while making sense of the individual parts is achieved through iterative searching as knowledge is acquired with each successive search (Boell & Cecez-Kecmanovic, 2010). Therefore, this iterative, open minded and evolving hermeneutic process was used to facilitate a better understanding and deeper knowledge successful implementation of DT. Hermeneutic method is suitable for this research as it facilitates an in-depth understanding of a particular topic, supports open ended research questions which may evolve over the course of the research and it is grounded in theoretical foundation and structured processes for the literature review process (Boell & Cecez-Kecmanovic, 2014). The hermeneutic cycle followed is shown in Figure 1.

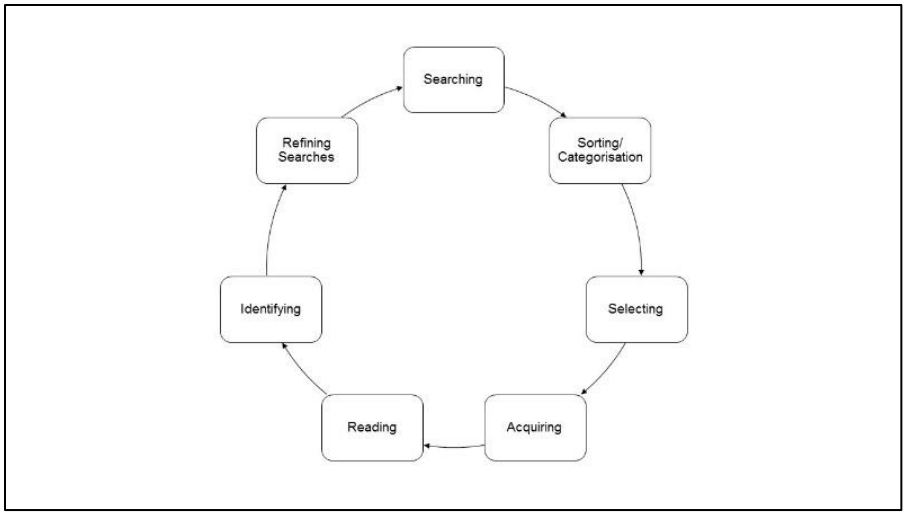


Figure 1: The hermeneutic circle adapted from Boell & Cecez-Kecmanovic (2010)

2.1.1 *Hermeneutic Processes used*

The *first step* is to define criteria that can be used to search the literature in relation to the research problem, while at the same time learning to identify more applicable sources of information out of which a big set of publications will be generated (Boell & Cecez-Kecmanovic, 2014). In this research, while the initial search criteria employed was "Digital Transformation" which is a broad term, this was not restricted to other criteria such as challenges, issues or successes as these returned too few results on which meaningful search process could be performed. The initial search was conducted on EBSCO-host and ProQuest, which returned 25 100 publications. Thereafter, when the same search was executed again, 11 104 publications were returned using EBSCO-host only.

The *second step* is to sort/categorise search results by using criteria such as relevance rankings, dates of publication or citations (Boell & Cecez-Kecmanovic, 2014). For this research, the date of publication was restricted to last five years from 2016 to 2021 so that only the latest developments and current research for DT were returned. Criteria of peer review or scholarly publications were also used to sort literature, resulting in 4 180 publications. A further sort using publication type of academic journal and reviews with full text available reduced the results to 2 325 publications. Thereafter, the sort for English language criteria returned 1 487 and a final sort on last five years returned 1 255 publications.

The *third step* involves selecting appropriate literature by assessing the title, reviewing the context of the publication and reading the abstract (Boell & Cecez-Kecmanovic, 2014). For this research, the titles and abstract were searched, thereafter, manually assessed together with conclusions to select those publications whose context was relevant and therefore could be acquired for reading. A title and abstract search returned 368 publications, which was reduced to 333 following an automatic removal of duplicates. Lastly, a manual assessment of title, abstract and conclusions resulted in 18 publications.

The *fourth step*, according to Boell and Cecez-Kecmanovi (2014) requires acquisition of full texts of the selected papers. This is often not a simple exercise as full texts may not be available for a myriad of reasons with electronic availability being one of them (Boell & Cecez-Kecmanovic, 2014). To acquire full text, a search criteria was applied to filter results with the full text available online. In this research, the acquisition of full text was performed with the second step for sorting.

The *fifth step* requires reading to develop an understanding of the literature, which understanding can involve taking notes to record ideas and concepts as they arise in the publications (Boell & Cecez-Kecmanovic, 2014). Boell and Cecez-Kecmanovic (2014) assert that the reading process may lend itself to the identification of additional literature sources and/or refinement of search strategies. To record the ideas, findings and concepts this research employed the Okoli and Schabram (2010) concept centric matrix which organizes literature into common themes. The most common themes recorded were DT leadership, DT strategy, Technology as an enabler for transformation, digital workforce skills and digital culture.

The *sixth step* requires researchers to identify further search terms and these can be additional publications, authors, journals, conferences and even other sources (Boell & Cecez-Kecmanovic, 2014).

The *final step* before the circle starts again is refining searches which involves search strategies that can be used to improve the relevance of literature searches (Boell & Cecez-Kecmanovic, 2014). To refine results in this research, full text publications were manually assessed to find publications that addressed DT implementation issues, challenges and maturity in large organizations. The publications without references and those that focused on digital technology as opposed to DT holistically, were excluded, resulting in a final list of 12 publications for literature review.

The steps described above form one iteration which was completed for this research.

Table 1 summarizes the results of the hermeneutic review process followed.

Data Source	Search process	Search terms	Hermeneutic circle step	Criteria	No. of studies
EBSCO-host ProQuest	Search date: 11th July No date restriction	Digital Transformation	Searching		25 400
EBSCO-host	Search date: 20th July No date restriction	Digital Transformation	Searching		11 104
EBSCO-host	Search date: 20th July No date restriction	Digital Transformation	Sorting	Scholarly (Peer Reviewed) Journals	4 180
EBSCO-host	Search date: 20th July No date restriction	Digital Transformation	Sorting Acquiring	Source type includes academic journals, reviews, Full text	2 325
EBSCO-host	Search date: 20th July No date restriction	Digital Transformation	Acquiring	English Language	1 487
EBSCO-host	Search date: 20th July	Digital Transformation	Sorting	Time period restricted to the last five years from 20160101-20211231	1 255
EBSCO-host	Search date: 20th July	TI digital transformation and AB digital transformation	Selecting	Title and Abstract search System automatically removed duplicates	368 333
EBSCO-host			Reading	Manual Search through reading abstracts and conclusions	18
EBSCO-host			Reading Identifying Refining	Full text assessment Addresses DT implementation issues, challenges, maturity in large organizations Excluded articles, papers without references, papers focused on digital technologies and post DT processes	12

Table 1: Literature search table adapted from Teichert (2019)

After identifying the applicable literature for review, the selected literature was reviewed.

2.2 Online Retail

Retail involves the sales of products for consumption (Masojata, 2022) and the retail sectors are primarily divided into Food, Clothing & Textiles, Consumer durables, Footwear, Jewellery, Books-Music-Gift articles and fuel (Tutorialspoint, 2022). The SA retail landscape spans numerous chain stores (Masojata, 2022). These retailers are general merchandise retailers operating across a broad range of product categories (Goga et al., 2019). In SA, the retail industry accounts for approximately 15% of the GDP (StatsSA, 2018) and the growth of retail business, according to Goga et al. (2019), is expected to be generated through online retail thus making it an important area of retail.

Online retail, also commonly known as e-Commerce, entails the sale of tangible goods over online platforms (Goga et al., 2019; Masojata, 2022). Online retail has three types: pure play retailers who trade online only; omni-channel retailers who complement traditional brick-and-mortar stores with online platforms (Goga et al., 2019; Masojata, 2022) and Marketplace which provides platform for other sellers to sell their products (Goga et al., 2019).

e-Commerce has, according to Goga et al. (2019), revolutionized the retail market creating a wider reach of customers, ability to personalize preferences, offer low prices and improve customer experience while currently growing at a pace that far exceeds traditional retail. The e-Commerce ecosystem starts with selection and ordering of products into the virtual shopping cart, followed by an online payment at checkout which is facilitated through online payment gateways, thereafter the order is processed then dispatched and the last step is delivery of the order to the customer via logistics or courier firms (Goga et al., 2019). The online retail value chain comprises of customer insights, web-based platforms, supply of stock, management of inventory, payment systems, warehousing and logistics which is illustrated on figure below.

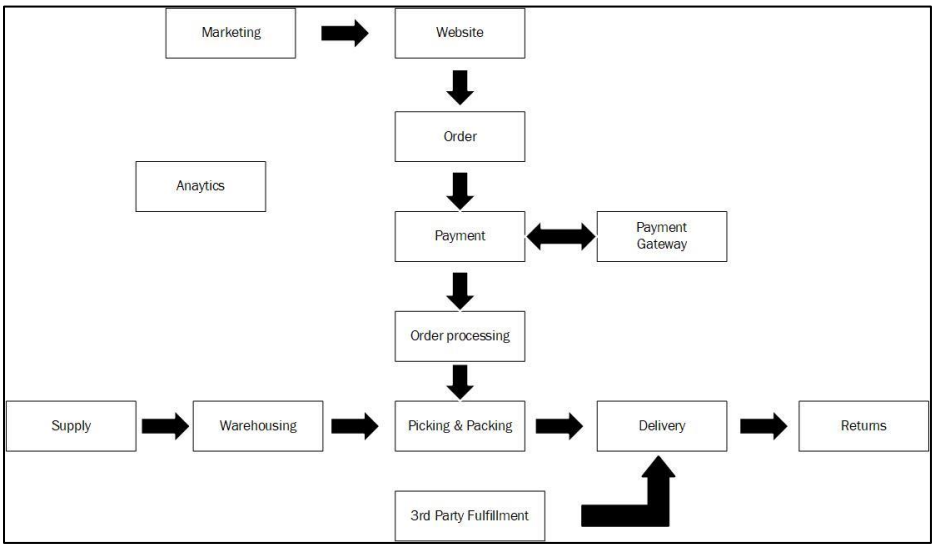


Figure 2: e-Commerce value chain adapted from Goga et al., 2019

2.3 Online Retail Environment

To contextualise the SA online retail environment, the e-Commerce industry, e-Commerce competition and e-Commerce regulation are discussed, as well as the impact of the Covid-19 Pandemic.

According to Businesstech (2021) SA's *e-Commerce industry* is expected to exceed R400 billion by 2025 fuelled by more than one billion transactions per annum with online spending growing at 40 to 100% over the past 2 years. This growth exceeds all conservative estimates and it is accompanied by a steady upward growth in transactions (Businesstech, 2021). The e-Commerce industry is growing at its fastest pace now more than before (Kibuacha, 2021; Goga & Paelo, 2019; Goga et al., 2019). Kibuacha (2021) shows 60% of South Africans are shopping online mostly for clothing, electronic devices, footwear, household appliances and health products. Goga et al. (2019) notes that some of these categories are growing rapidly, while Goga and Paelo (2019) support this, state that improvements in infrastructure will fuel further growth.

In terms of *e-Commerce competition*, according to Businesstech (2021), Goga and Paelo (2019) and Goga et al. (2019) SA's dynamic shift to e-Commerce has seen changes in the competitive landscape, allowing smaller independent retailers to penetrate the market, however, larger retailers still dominate the market though they face different cost and security barriers to the smaller retailers. Goga and Paelo (2019) contend that e-Commerce removes high barriers to entry for small businesses and according to Goga et al. (2019), it lowers their transaction cost and increases their market exposure. The e-Commerce shift has seen the rise of digital numerous Marketplaces with traditional brick-and-mortar stores also showing up significantly online and growing (Businesstech, 2021) using online sales as alternative channels (Goga et al., 2019). According to (Goga et al., 2019) one retailer has emerged as the most prominent online retailer in SA followed one other retailer.

The *e-Commerce Regulation* refers to government dealings regarding e-Commerce in SA. According to Goga and Paelo (2019), the rise of e-Commerce has not come without policy framework challenges and these challenges are multi-dimensional ranging from competition, tax, trading, data security, intellectual property (IP) and countries across the world are all battling with the same challenges. There remains questions about the nature of regulatory framework required given the different policy types that impact on e-Commerce. There are policies that facilitate e-Commerce provision and uptake such as supportive telecommunications and postal policy, regulation of payment systems, digital promotion policies and e-Commerce industrial development policies. There are also policies that determine the international implications and competitiveness of e-Commerce for local industries and government (Goga & Paelo, 2019). Lastly, there are policies that prevent consumer exploitation such as digital competition policy and policies related to consumer protection such as data privacy and fraud protection in payment systems (Goga & Paelo, 2019). The collection, analysis and tracking of consumer data elevates data privacy, as such retailers are responsible to manage data privacy concerns beyond what government regulations dictate (Roggeveen & Sethuraman, 2020).

Goga and Paelo (2019) and Goga et al. (2019) assert that it is a common concern the world over that while e-Commerce provides opportunities to increase market access and a route to entry for small businesses, given economies of scope and scale, e-Commerce also creates a risk to consolidate power for only a handful large e-Commerce businesses. Accordingly, these businesses must be guarded through regulation from abusing their dominance (Goga & Paelo, 2019).

According to Goga and Paelo (2019) and Goga et al. (2019) the e-Commerce market in SA is not yet mature and there exists no single e-Commerce platform or Marketplace with a dominant position in terms of the Competition Law, as such government needs to be sensible of regulating too early and stifle the local market growth and development. This situation is not unique to SA only, in developed countries regulations and policies that relate to e-Commerce are in developing stages (Goga & Paelo, 2019; Goga et al., 2019).

Covid-19 catapulted the rate of change of technology changes and the retail business sector was among the most impacted (Roggeveen & Sethuraman, 2020). The Covid-19 Pandemic influenced people's daily routine significantly, in retail, what consumers prioritize changed, services' touch points were impacted and business process alike, in fact, all stakeholders in the retail value chain had to relook their ways of working to survive the pandemic (Jiang & Stylos, 2021). These lifestyle changes by consumers impacted the customer journey and how they engage with retail technology (Roggeveen & Sethuraman, 2020). According to Jiang and Stylos (2021), digital technologies were key to keeping retailers operational as they changed their ways of accessing consumers. Increasing in popularity, are technology tools that enabled mobile ordering, order tracking, pick-up and delivery options (Roggeveen & Sethuraman, 2020). It is evident that Covid-19 Pandemic played a significant role to influence retailers' digital response and customer's expectations alike.

2.4 Digital Technologies

According to Hopping (2000), Jiang and Stylos (2021) and Mimoun, Miltgen and Slama (2022), digital technologies play a significant role as an enabler for DT in retail. Advancements in technologies are responsible for the intense competition within the retail industry (Moorhouse, Dieck & Jung, 2018), equally for the changing consumer shopping patterns as their expectations also increase phenomenally (Hopping, 2000; Mimoun et al., 2022; Moorhouse et al., 2018). Technologies are changing the retail industry (Mimoun et al., 2022), similarly technologies present a threat for retailers who are slow to embrace DT (Hopping, 2000). According to Hopping (2000), it is the convergence of technologies and the will to change that is creating an opportunity for transformation of retail. Digital technologies offer retailers the opportunity to adapt in an environment changing at fast pace (Jiang & Stylos, 2021).

According to Jiang and Stylos (2021), Digital Technology presents retailers with many options, from social media platforms, robots, mobile-applications to wearables, crypto-currencies and Block-chain. The global trend in mobile devices and social media is leading the revolution that is responsible for slowing traditional brick-and-mortar retail, as such traditional retailers are faced with pressure to respond to the digital revolution

and connect with the digital generation (Moorhouse et al., 2018). Technology enables retailers to be better intermediaries, improving management of stock as technology provides better supply and demand information, owing to data transfer storage and analytic capacity made possible by integrated software, telecoms and modern computing power (Niemeier, Stefan & Marco, 2013). Technologies like the Web and electronic data interchange (EDI) raised fundamental questions about the role of retailers as intermediaries but also the overall impact e-Commerce will have on traditional brick-and-mortar (Hopping, 2000). Marketplaces which are made possible by the Internet, can now leverage digital technology like shopping robots, virtual agents to assists consumers to find what they need by performing searches over various products on offer (Hopping, 2000). Some of the technologies revolutionizing retail are Pervasive Computing which includes Personal Digital Assistants (PDAs) which exchange data with back-office systems changing the manner in which information is managed across the supply chain, these multifunction portable devices can be used as workstations, point-of-sale devices, receiving inventory and dispatching, elevating economics of information for retailers (Hopping, 2000). Mobile channels including mobile apps and devices, in-store technologies, augmented and virtual reality applications, various bots and social media are diminishing the boundaries between the physical and online stores (Mimoun et al., 2022), in so doing, serving the needs of consumers and achieving the goals of retailers (Jiang & Stylos, 2021). According to Jiang and Stylos (2021), while the fifth generation wireless technology improves communications with consumers and deliveries thereof, the automated delivery robots and drone deliveries increase the adoption of Artificial Intelligence (AI) in retail. Other technologies like cross-docking, automated self-checkout, Radio Frequency Identification (RFID), Biometric identification and payment systems attached to shopping carts enable retailers to either save costs and/or enhance the customer service experience (Roggeveen & Sethuraman, 2020).

2.5 Digital Transformation

DT is changing our understanding of doing business, of learning and development in a fundamental way and with unrivalled speed (Vey et al., 2017). DT is realised through the implementation of new technologies such as Cloud Computing, Internet of Things (IoT), Big Data, Cloud Enterprise Relational Planning (ERP), AI and has emerged as the Fourth Industrial Revolution (4IR) (Mahmood et al., 2019). According to Banda (2021) and Mahmood et al. (2019), DT occurs when organizations include digital technologies in their product offerings, strategy development and business processes to improve their competitive advantage by bettering their customer service and interaction with their workforce. DT refers to how an organization transforming its core business processes, using digital technology to improve into all areas of a business and fundamentally changing how organizations operate effectively and deliver value to customers (Mahmood et al., 2019). Gurbaxani and Dunkle (2019) extend the definition to include the vision, structures, capabilities and the organizational culture needed to stay abreast of the new, evolving and compelling business digital landscape.

DT is an evolutionary process that leverages digital capabilities and technologies to enable business models, operational processes and customer experiences, to create value starting with the adoption and use of digital

technologies then evolving into an implicit holistic transformation of an organization (Teichert, 2019). According to Mugge et al. (2020) and Teichert (2019), DT is not a once-off process, but rather an ongoing progression of transformation enabled by digital capabilities with technology implementation being only the beginning. Mahmood et al. (2019) claim that DT, which occurs with the introduction of digital technologies, demands fundamental change in organization processes, technology and behaviour of the people.

Gurbaxani and Dunkle (2019) contend that the success of organizations today depends on their ability to exploit DT. Organizations must ensure that they have the appropriate technology capabilities and talent, build a culture that enables change (Gurbaxani & Dunkle, 2019) underpinned by leadership (Kazim, 2019; Sainger 2018) and a clear strategy (Eden et al., 2019; Mahmood et al, 2019).

2.6 Benefits of DT

The benefits for DT occur at multiple levels but are primarily premised on creating competitive advantage for organizations (Banda, 2021; Eden et al., 2019; Gurbaxani & Dunkle, 2019). DT compels organizations to transform end-to-end by leveraging digital technologies to transform their operations (Erceg & Zoranovic, 2020; Gurbaxani & Dunkle, 2019; Mahmood et al., 2019) which offers many benefits for organizations.

As organizations digitally transform their operations, they improve customer services by offering new *customer value propositions* (Mahmood et al., 2019). DT enables organizations to become *agile*, which in turn assists organizations in becoming responsive to market changes (Banda, 2021; Eden et al., 2019; Gurbaxani & Dunkle, 2019). In addition, DT helps organizations to increase their *speed of innovation,* ultimately creating capability to be able to *respond and adapt* to a fast-changing digital landscape (Banda, 2021; Eden et al., 2019; Gurbaxani & Dunkle, 2019). Furthermore, DT helps organization to *reduce operating costs* (Banda, 2021; Eden et al., 2019; Gurbaxani & Dunkle, 2019) and offer *improved operating environment* with *digital business processes* (Erceg & Zoranovic, 2020; Gurbaxani & Dunkle, 2019; Mahmood et al., 2019).

With DT, organizations *improve the way they interact with their workforce* (Mahmood et al., 2019) which helps organizations to improve their *people's performance* (Banda, 2021; Eden et al., 2019; Gurbaxani & Dunkle, 2019) and a create a *digital workplace culture* characterized by *adaptability and responsiveness* (Erceg & Zoranovic, 2020; Gurbaxani & Dunkle, 2019; Mahmood et al., 2019).

However, the myriad of benefits of digitally transforming an organization do not come without challenges.

2.7 Challenges of DT

While there are multiple benefits associated with DT, challenges are pervasive, with an estimated 70% failure rate for DT projects (Mahmood et al, 2019). Some of the leading challenges are integration and acceptance of the new digital technologies (Kokolek et al., 2019); the complexity of DT in terms of people, process and

technology (Mahmood et al, 2019); the complicated, ambiguous, and non-routine managerial tasks for organizations that occur as a result (Mahmood et al., 2019) and poor leadership (Kazim, 2019).

If management is unaware of an *effective strategy* or organizations do not have any strategy which covers transformation holistically, it creates a challenge for DT (Mahmood et al., 2019). When companies focus on the *digital technology,* it derails from the overall transformation of the organization (Teichert, 2019). According to Kane (2019), a DT approach that focuses only on digital capabilities is unlikely to succeed as organization wide transformation that involves leadership (Kazim, 2019; Sainger 2018), strategy development (Eden et al., 2019; Mahmood et al, 2019), workforce transformation (Eden, et al. 2019) and a culture shift (Gurbaxani & Dunkle, 2019) is also required.

With DT being a relatively new phenomena organizations are challenged with supply of *digital competencies,* which are the skills, knowledge and attitude required to execute the necessary new processes (Vey et al., 2017). According to Vey et al. (2017), these digital skills required are in *short supply and take time to develop*.

A *conducive organizational culture* is required to enable DT. However, according to Teichert (2019), Vey et al. (2017) and Eden et al. (2019), *company culture is seen as the first deterrent towards DT* which significantly hampers any digital efforts and as such changes to organizational culture are an antecedent for implementing DT successfully.

Leadership is critical for DT success (Sainger, 2018) and unfortunately p*oor leadership* has regrettably resulted in some catastrophic failures due to complexity that leaders are required to navigate. Kazim (2019) claims that lack of DT leadership is the primary reason behind some catastrophic failures together with the *inability to change the status quo* inside the organization which fundamentally cannot remain when undertaking DT.

The challenge for organizations is to find the right balance on all aspects of DT in order to manage these challenges and ensure success.

2.8 Implementing successful DT

For organizations to implement DT successfully it requires a DT framework that broadly covers strategy, technology, workforce and culture aspects to manage the organization wide transformation efforts (Gurbaxani & Dunkle, 2019). An organization wide transformation that involves leadership (Kazim, 2019; Sainger 2018), strategy development (Eden et al., 2019 & Mahmood et al, 2019), workforce transformation (Eden, et al. 2019) and culture shift (Gurbaxani & Dunkle, 2019) is pivotal as a DT approach that focuses only on digital capabilities is unlikely to succeed with implementing DT (Kane, 2019). Eden et al. (2019) state that prior to DT, the digital skills required may not exist, the digital culture conducive for DT may not exist, the roles and responsibilities may not exist, as such DT will bring these about resulting in a workforce transformation without which DT

cannot succeed. Thus, it is important to view DT beyond technological capabilities if the transformation is to be successful.

A literature review by Eden et al. (2019), Kazim (2019), Gurbaxani and Dunkle (2019), Mahmood et al, (2019), Nnzeru (2021), Sainger (2018), reveals five key themes that influence the successful implementation of DT in organizations. These can be summarized as organizations needing to have 1) a DT programme with leadership (Kazim, 2019; Sainger 2018); 2) a clear articulated and effective strategy (Eden et al. 2019; Mahmood et al, 2019); 3) a transformation agenda enabled by digital technology instead of putting technology first (Mugge et al., 2020); 4) requisite digital skills; and 5) a dynamic digital culture conducive for change (Gurbaxani & Dunkle, 2019).

2.8.1 *DT Leadership*

According to Kazim (2019), leadership is critical for DT and poor leadership has regrettably resulted in some catastrophic failures given the complexity that leaders are required to navigate. Sainger (2018) supports this, alluding to the criticality of leadership for successful DT. Kazim (2019) adds that lack of DT leadership is the primary reason DT is not implemented successfully combined with the inability to change the status quo inside the organization which fundamentally cannot remain when undertaking DT.

There are effective styles of leadership, characteristics and traits that are conducive for the successful implementation of DT and these include Technology entrepreneurship, transformative leadership style and authenticity (Kazim, 2019). As such, DT Leadership requires leaders to communicate effectively and to collaborate while using a top-down leadership approach (Kazim, 2019). Which, according to Erceg and Zoranovic, (2020), calls for professionalism, persistence to overcome employee resistance, change management and above all agility more technology astuteness.

According to Sainger (2018), DT leadership requires leaders to put the right people, processes, technology, engagement models, structures and business model to drive their DT vision for the organization. Meaning that leadership must build cooperation between generational gaps in their organization, align strategy with operations, attract talented people and embed transformation using relationship focused style leadership (Kazim, 2019). For leaders to implement DT successfully they must navigate DT through influence and not merely rely on positional power to get buy-in into the process, without which there maybe resistance from employees to embrace the changes.

Leaders must have agreed corporate objectives and ensure the DT agenda aligns to these objectives including business activities, people, work culture and the organizational structure (Sainger, 2018). According to Sainger (2018) and Eden et al. (2019), leaders ought to foster a new culture, an environment that enables DT and develop new business models leveraging technological capabilities as enablers to equip the workforce for change whilst understanding, closing the workforce skills and competencies gap (Kazim, 2019; Sainger, 2018)

and using HR processes to upskill, recruit and reorganize. Leaders need to prepare their workforce for successful implementation of DT (Eden et al., 2019). Furthermore, Eden et al. (2019) demonstrate in their longitudinal case study that building a cultural foundation not only prepares the workforce for DT but also improves the DT process.

The personal characteristics, style and ability to lead from the front on all DT related issues is key to implementing DT successfully as well as agency for change. Ultimately, leadership is the foundation organizations needs to implement DT successfully. The subsequent themes will only be made possible if there is leadership that recognizes the need and lead accordingly.

2.8.2 *DT Strategy*

The development of an effective DT strategy is important in organizations and ought to be proactive regarding people, processes and technology including how they align to corporate goals (Mahmood et al., 2019). Mugge et al. (2020) affirm this, stating that a DT vision and strategy must be part of everything the organization does. According to Banda (2021), a DT strategy will position organizations to move from mere survival to thriving in a future of technology-based economies.

According to Kazim (2019), a strategy cannot be effective if leadership does not communicate relentlessly organization wide. For DT efforts to be successful and progress at desirable pace, leaders must be relentless when it comes to communication, this not only draws support for DT, but minimizes resistance from employees and helps articulate the value of DT which improves understanding of DT (Mugge et al., 2020). This assertion is supported by findings from organizations with digital maturity which display transparent and open communication across their organizations (Mugge et al., 2020). If leaders are consistent and coherent in their communication efforts, it will demystify the complexities and ambiguities of DT implementation, helping to obtain buy-in from stakeholders for the process. Mahmood et al. (2019) attribute an effective strategy for DT as critical for success or failure. The articulation of a clear strategy is important for DT, the strategy has to be all encompassing in the organization and be communicated top-down in order to be effective in DT.

2.8.3 *Technology as an enabler for DT*

According to Mugge et al. (2020), DT is not about technology but rather about transformation in the organization and leaders have to act as pioneers for the transformation in order for DT to be implemented successfully (Sainger, 2018). Mugge et al. (2020) and Teichert (2019) claim that DT is an ongoing process of transformation enabled by digital capabilities, with the implementation of digital technologies being the start of a journey which requires organization wide transformation to be successful. According to Kane (2019) and Sainger (2018), a DT approach that focuses only on digital capabilities is unlikely to succeed when implementing DT.

When leveraging digital technologies to create and capture value, Gurbaxani and Dunkle (2019) state that leaders must have the foresight to plan for technology changes and understand its full impact across the organization, in order to remain relevant in the market and competitive in a fast changing digital environment. According to Eden et al. (2019), Kazim (2019), Kokolek et al. (2019), Sainger (2018), Schiuma et al. (2021) and Teichert (2019) technology is an enabling vehicle for DT, enabling organizations to transform their workforce, projects and the organization at large into adaptable entities. In order for organizations to implement DT successfully, they must redesign their customer value offerings and transform their businesses using digital technology to better serve the customers and create competitive advantage (Teichert, 2019). According to Eden et al. (2019), DT is intertwined with workforce transformation and as such DT cannot be separated from the transformation of the workforce. The keywords 'leveraging' and 'using' technology in these findings emphasize that technology is not synonymous with DT, but an important enabler for the process without which organizations cannot transform digitally.

Eden et al. (2019) recommend a unique approach to develop a project management and optimization forum, for the purpose of deliberating and agreeing on improvements required following implementation of digital technology as an effective way to embed the technology and reduce employee resistance. This approach further demonstrates the focus on the people and processes during DT as the forum formed comprised of business process champions and technology teams in order to reap the benefits thereof.

Therefore, technology should not be end goal for DT, but it is an important enabler (Nnzeru, 2021) that must be leveraged for DT success.

2.8.4 *Digital Workforce Skills*

The importance of workforce in DT cannot be underestimated. Workforce plays an important role in the successful implementation of DT and while this area needs focus it has often been overlooked (Sainger, 2018). According to Vey et al. (2017), it does not suffice for organizations to have a clarity with vision and agility only to overcome DT challenges but both leaders and employees must be equipped with competencies required to work with digital processes. This requires organizations to create environments conducive for learning and nurturing of digital skills (Vey et al., 2017).

According to Mugge et al. (2020) organizations must support training efforts and each department objectives must be linked to the achievement of their digital capabilities. Sainger (2018) adds that organizations need to invest in both formal and informal learning experiences to address the workforce skill gap. Furthermore, Erceg and Zoranovic (2020) state that collaborating with external service providers allows organizations to build capacity and capability for DT given that the skills and competencies needed are in short supply and require time to develop.

A digital workforce is important for successful implementation of DT, can become a new source of competitiveness and thus recognizing the workforce skills gaps and implementing necessary interventions to develop requisite skills to create a digital enabled organization helps organization to succeed with DT implementation (Sainger, 2018).

2.8.5 *Digital Culture*

Organizational culture plays an important role in the successful implementation of DT, to this end it can be a barrier or an enabler for DT and organizations are recognizing this (Teichert, 2019). According to Teichert, 2019; Vey et al., 2017 and Eden et al., 2019, company culture is seen as the first deterrent towards DT which significantly hampers any digital efforts and as such changes to organizational culture are an antecedent for implementing DT successfully.

According to Teichert (2019), Eden et al. (2019), Erceg and Zoranovic (2020), Sainger (2018) and Vey et al. (2017) organizations need a culture that is characterized by adaptability and responsiveness to changes in the environment. Erceg and Zoranovic (2020), Kazim (2019), Mugge et al. (2020) and Teichert (2019) add that digital innovations require collaboration and engagement approach focused on empowering people and change towards a digital culture. The culture of engagement and collaboration, according to Mugge et al. (2020), should not be limited to inside the organization but requires external focus for key partners as part of the business model. Erceg and Zoranovic (2020) claim that digital leaders ought to nurture a digital culture which is founded in continual learning, adaptability and innovativeness. The Learning and Development (L&D) function becomes critical as a facilitator for DT in shaping a culture of innovation and learning while treating DT as transformation (Vey et al., 2017) and supporting the organization through the changes.

Vey et al. (2017) and Eden et al. (2019) emphasize the importance of starting with internal transformation when the organizational culture and structures are not flexible and agile to facilitate successful implementation of DT. Organizations that undertake this culture shift early on reap the dividends during DT, evidently Eden et al. (2019) found that a foundation in digital culture facilitates DT and enables the leaders to prepare the workforce for successful implementation of DT. According to Eden et al. (2019), digital culture as a foundation will not only prepare an organization and its people for DT but also improve the process.

The significance of culture, claims Teichert (2019) is demonstrated in the significant role it plays in general digital maturity models with other "soft" dimensions required for DT like leadership, vision and innovation having a lesser influence. In contrast, Kazim (2019), Mugge et al. (2020), Sainger (2018) and Schiuma, et al. (2021) argue that leadership is the most significant. Whilst authors may disagree on which of these factors play a more important role than the other in the implementation of successful DT, it appears that they fundamentally contribute to success, with organizations which focus on these dimensions likely to improve their chances of success with implementation of DT.

Figure 3 provides a graphical depiction of the mind map detailing key factors for successful DT leadership as discussed in the literature.



Figure 3: Mindmap[1] of DT factors

2.9 Conclusion

This chapter described the literature review method adopted, outlined the applicable steps and presented the literature search process employed. The relevant literature reviewed for DT was presented, with each of the identified factors being detailed.

Using the literature reviewed and the identified factors, the next section presents possible theoretical frameworks to be used to underpin and guide the data collection and analysis for the proposed study.

[1] This mind map will be used to frame questions for the research instrument to help understand how these themes apply in SA context.

3 CONCEPTUAL FRAMEWORK

This section first provides a brief overview of why a conceptual framework (CF) is needed to conduct empirical studies. Thereafter, possible CFs are presented. Lastly, the CF selected as most suited for this study is detailed, along with an overview of how the CF was applied for the DT phenomenon.

According to Varpio, Paradis, Uijtdehaage and Young (2020), a CF is useful for outlining the methodological underpinnings of a research project. Lederman and Lederman (2015) wrote that CFs are important for all research regardless of the method employed and argue CFs are necessary in order justify the significance of the research. Whilst Varpio et al. (2020) claim that there is a distinction between the theoretical framework and conceptual framework, however, they are often used interchangeably. Within this study the CF was used. To apply a CF in research, Varpio et al. (2020) contend that the researcher first needs to choose which theory or theories that can be used as the lens for their particular study. Thereafter, the researcher transforms the theory into a CF that describes how the theory guides the research questions, the concepts that will inform the design of the study, the decision on the methodology, the methods of data collection, the interactions with respondents, the method for data analysis and the conclusions which will be drawn (Varpio et al., 2020). Against this background three possible CFs are presented and assessed: the Technology Acceptance Model (TAM); Institutional Theory (INT) and Technology, Organization and Environment (TOE) Framework.

3.1 Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) was identified as a possible theory due to its wide application in IS for studying end-user adoption and use of technology (Venkatesh & Bala, 2008). Venkatesh and Bala (2008) developed an integrated TAM framework which has been validated and consistently found to explain IT adoption based on parsimonious relationships among ease of use, usefulness and intention to use. According to Venkatesh and Bala (2008), TAM consistently explains about 40% of the variance in individuals' intention to use an IT and actual usage. TAM is a highly effective model for predicting users' behaviour for IT adoption (Chen, 2019). Many studies have found TAM to provide a strong conceptual and empirical evidence making it a well validated behavioural decision-making model (Lust, Elen & Clarebout, 2012). Using psychological factors to explain technology adoption, TAM reflects the influence of Theory of Reasoned Action (TRA) predicting behavioural intention and Theory of Planned Behaviour (TPB) then extends TRA to include perceived behaviour control (Chen, 2019).

3.1.1 *Overview of TAM*

TAM represents a cumulative body of knowledge using determinants of IT usage; perceived usefulness (PU) and perceived ease of use (PEOU) (Venkatesh & Bala, 2008). According to Chen (2019), TAM posits that users' IT adoption behaviour will be influenced by the degree to which a person believes using IT enhances the activity required – PU - and the degree to which a person believes using IT would be free of effort – PEOU - respectively

(Lust et al., 2012; Venkatesh & Bala, 2008). PU and PEOU have four characteristics which are: 1) individual difference which are variables which include personality and/or demographics that can influence individuals' perceptions of PU and PEOU; 2) systems characteristics which are the salient features of a system that can help individuals develop un/favourable perceptions regarding PU and PEOU; 3) social influence are the social processes and mechanisms that guide an individual to formulate perceptions of various aspects of an IT and 4) facilitating conditions which are the organization support that facilitates use of IT (Venkatesh & Bala, 2008).

In addition, PU is concerned with Social Influence and System characteristics. The factors for Social influence are Subjective Norm and Image which is the degree that influential people think he should or should not use the system and the use of IT will enhance his social standing respectively (Venkatesh & Bala, 2008). The factors for Systems characteristics are PEOU, Job relevance, output quality and result demonstrability which measure the degree to which an individual perceives using IT will be free of effort, the system's relevance for their job, the system's ability to carry out the job and that the results of using the system being tangible, respectively (Venkatesh & Bala, 2008).

Furthermore, PEOU is concerned with Individual differences, Facilitating conditions and System characteristics. Individual differences measure Computer self-efficacy, Computer anxiety and Computer playfulness which is the individual's beliefs regarding their ability, individual's apprehension towards using computers and the individual's intrinsic motivation, respectively (Venkatesh & Bala, 2008). Facilitating conditions measure the individual's control belief regarding availability of organizational resources to support use of the system. System characteristics measures perceived enjoyment from using system and objective usability based on effort required for completing tasks across systems, respectively (Venkatesh & Bala, 2008).

Figure 4 presents a graphical representation of TAM showing the determinants and their influence.

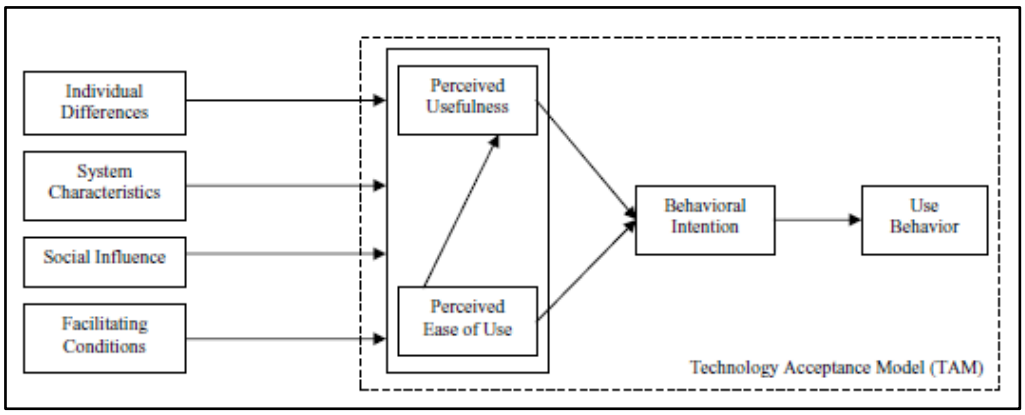


Figure 4: TAM theoretical framework adapted from Venkatesh and Bala (2008)

3.1.2 *Where TAM has been used*

TAM has been used extensively to understand various IT technology adoption initiatives in the following areas: Mobile commerce (Chi, 2018); Cloud Computing adoption (Hemlata, Hema and Ramaswamy, 2015); e-Health adoption (Rakibul, Yukun & Golam, 2017); Internet banking adoption (Riffai, Grant & Edgar, 2012; Bijith, Nilay & Chandan, 2017); e-Learning (Amulla, 2021; Buchanan, Sainter & Saunderers, 2013; Mailizar, Damon & Suci, 2021); Retail technology adoption (Kaushik & Rahman, 2015); Driverless car technology adoption (Koul & Eydgahi, 2018); Webcasts adoption (Lust et al., 2012) and Enterprise Relational Planning (ERP) systems adoption (Nnzeru, 2021b).

TAM has also been used with other theories to explain adoption, for example TAM was combined with Task Technology Fit to understand more about telematics (Chen, 2019); in Xie, Song, Peng and Shabbir (2017) TAM was combined with TPB to understand e-Government; in Chatterjee, Rana, Dwivedi and Baabdullah (2021) TAM was integrated with TOE to study AI adoption; in Ming-Chi (2009) TAM was combined with TPB to study internet banking and in Hossein (2015) TAM was combined with the IS success model to study e-Learning.

3.1.3 *Reasons for not selecting TAM*

While TAM is a powerful framework that can explain IT adoption, the framework does not provide interventions for management to influence PU and PEOU as these determinants are incomplete predictors on their own due to lack of actionable guidance (Chen, 2019; Venkatesh & Bala, 2008). Furthermore, as this research aims to understand and explain successful implementation of DT at an organization level, TAM is not a suitable theory as its primary objective is to predict individual adoption and use of new IT (Venkatesh & Bala, 2008).

3.2 Institutional Theory (INT)

Institutional theory was identified as a possible theory given its strength in understanding internal and external influences for organizations undergoing large change initiatives (Trope, 2014), for which the successful implementation of DT can be classified. According to Oliveira and Martins (2011), the environment an organization operates in will shape its structure, actions and its decisions. Oliveira and Martins (2011) add that decisions of an organization are not driven only by efficiency objectives but also by social and cultural influences, as well as their desire for legitimacy. Organizations cannot exist separately from the social environment where they operate and their behaviour and degree of innovation can be understood in their social context (Dos Santos, Borini, Pereira & Raziq, 2020). According to Lin, Luo and Luo (2020), firms confront degrees of uncertainty by imitating other successful firms in the pursuit of professional, social and economic acceptance. INT offers important theoretical lens for understanding the impact that external forces have on decisions of organizations, it has wide application and provides sound conceptual basis for explaining organizational transformation change (Lin et al., 2020). According to Oliveira and Martins (2011), INT adds to

the environment context of the Technology, Organization and Environment Framework, enhancing its explanatory power (Oliviera et al., 2019).

3.2.1 *Overview of INT*

According to Oliveira and Martins (2011) and Dos Santos et al. (2020), organizations become similar as a result of isomorphic pressures and pressures for legitimacy. Dos Santos et al. (2020) contend that organizations not only seek but are influenced by effects of legitimacy.

The isomorphic pressures in the institutionalized environment are mimetic, coercive and normative institutional pressures and are likely to play a role in organizations' predisposition of an IT based inter-organizational system (Oliveira & Martins, 2011). Mimetic isomorphic pressures exist when organizations imitate their competition (Dos Santos et al., 2020; Oliveira & Martins, 2011) which creates high degrees of uncertainty (Dos Santos et al., 2020). Coercive isomorphic pressures exist when pressure is exerted by other organizations (Dos Santos et al., 2020) and these can be formal or informal forces upon which organization depend (Oliveira & Martins, 2011). Normative isomorphic pressures exist when organizations share information through a form of a network which creates consensus (Oliveira & Martins, 2011), this can be professional bodies and formalization (Dos Santos et al., 2020) which create channels of relating within a network (Oliveira & Martins, 2011). According to Dos Santos et al. (2020), research has shown the key role legitimacy plays in diffusion of organizational innovation.

3.2.2 *Where INT has been used*

A number of studies have employed the INT (Lin et al., 2020) to explain acceptance and diffusion of innovation, these are: Electronic Data Interchange (Teo et al., 2003); ERP (Ugrin, 2009); green IS adoption (Butler, 2012); Cloud service transformation (Yu et al., 2018) and ERP assimilation (Liang et al., 2007).

3.2.3 *Reasons for not selecting INT*

Firstly, while INT shows empirical evidence, is powerful in explaining diffusion of innovations in organizations (Lin et al., 2020; Trope, 2014), however, INT is deemed not appropriate for this research due to its limited focus on environment or external pressures only. Secondly, not all isomorphic pressures play a role in diffusion of innovation (Lin et al., 2020). Lastly, the role of external pressures on organizations can yield both positive and negative impressions on innovations and this can negatively affect decisions on innovations (Lin et al., 2020).

3.3 Technology, Organization and Environment Framework (TOE)

According to Oliveira and Martins (2011), the Technology, Organization and Environment (TOE) Framework has been used extensively with the Diffusion of Innovation (DOI) theory to understand e-Commerce innovations, as these models provide solid theoretical foundations and consistent empirical support. In addition, TOE enables researchers to group factors in the research setting while taking into account the broader

context in which they occur (Uwamariya & Loebbecke, 2020). Furthermore, the TOE framework is not only comprehensive but also can be extended with additional factors, as there are no universal TOE factors applicable across contexts (Uwamariya & Loebbecke, 2020). According to AlHinai (2020), the TOE framework is one of the most recognized and established theory for organizational technology innovation. Chatterjee et al. (2021) claim that the adoption of any technology can be interpreted with ease using the TOE Framework, as it enables researchers to explain factors impacting adoption using technological, organizational and environmental dimensions for any modern technology innovation.

3.3.1 *Overview of TOE Framework*

According to Tornatzky and Fleischer (1990), the TOE framework describes three contexts which influence an organization's decision to adopt and implement technology innovations. The contexts are: Technology context; Organization context and Environment context (Oliveira & Martins, 2011; AlHinai, 2020; Aboelmaged, 2014). AlHinai (2020) claims that when organizations influence factors within some or all of these contexts, it determines the extent of innovation and the likelihood of making a decision to adopt new innovation.

TOE is similar to the DOI theory which was developed by Roger (1995) and is a theory of how, why and at what rate new ideas and technology spread through cultures, operating at the individual and firm level (Oliveira & Martins, 2011). According to Oliveira and Martins (2011), DOI theory sees innovations as being communicated through certain channels over time and within a particular social system.

Figure 5 illustrates the three contexts of TOE

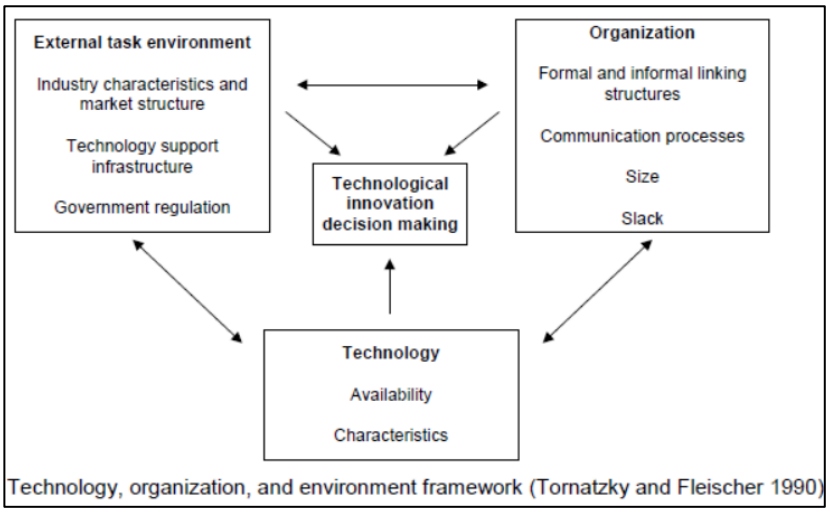


Figure 5: TOE framework adapted from Tornatzy and Fleischer (1990)

- ***Technology Context***

The technology context focuses on how technology practises and structures influence the adoption process (Aboelmaged, 2014). AlHinai (2020) defines the main considerations of technology as 1) availability, which refers to the technologies that are internal or external to the organization and 2) characteristics, which refers to the attributes of the technologies and the related processes. According to Uwamariya and Loebbecke (2020) and Oliveira and Martins (2011), technology can either be internal or external to the organization. Internal being those technologies an organization has in use and external merely relevant to the organization's domain but not currently in use.

AlHinai (2020) argues that organizational changes as a result of decision taken to adopt technology can vary from incremental, to synthetic, to discontinuous. Incremental changes build on existing technology and have minimum impact, while synthetic changes are created by rearranging existing technology to create new solutions and have medium impact and discontinuous changes are radical changes introduced by new technology and have large impact (AlHinai, 2020). The impact of technology driven change on organizations, according to AlHinai (2020), can be positive or negative and in the case of radical changes DT creates such as a new operating environment for organizations, for example changing the way things used to work, requiring high degrees of knowledge and quick decision making to maintain competitiveness. Therefore, based on the above definitions, DT can be classified as a discontinuous technology-driven change.

- ***Organization Context***

Uwamariya and Loebbecke (2020) describe the organization context as an organization's resources and strategies available for deployment of technology and manifests in common organization attributes that can either facilitate or hamper adoption of innovation in an organization (Aboelmaged, 2014). AlHinai (2020) claims that organizational context plays an important role in determining whether the organization will be able to understand and embrace transformation driven by new digital technologies. The attributes within this context include: what the organization does, size of the organization, management structures, human resources, tools for decision making and communication (Aboelmaged, 2014). Furthermore, AlHinai (2020) describes the organization context as including internal characteristics such as the organization structure, degree of decentralization, level of formalization, workplace culture, how it is staffed and employee reporting lines. Depending on the context, these internal characteristics impact organizational decision for adopting technology innovations at varying degrees (AlHinai, 2020).

- ***External Task Environment***

According to Oliveira and Martins (2011), AlHinai (2020) and Aboelmaged (2014) the external task environment, also referred to as environment, describes the arena of business where an organization operates and includes the industry, competition, government interactions, economic, political and macroeconomic

landscape. Aboelmaged (2014) further adds that the environment context as reflects multiple stakeholders who determine the needs for innovation, the ability to acquire resources in pursuit of innovation and capabilities for carrying out those innovations. AlHinai (2020) and Uwamariya and Loebbecke (2020) contend that the external task environment influences technology innovations, with environments that are enabling being conducive for achieving desirable DT outcomes in this study context and environments that are not enabling hampering the ability to achieve desirable DT outcomes.

3.3.2 *Where TOE has been used*

A number of studies have used the TOE framework (Oliveira & Martins, 2011; Uwamariya & Loebbecke, 2020) in various contexts such as e-Commerce (Liu 2008, Martins & Oliveira 2009, Oliveira & Martins 2011); business-to-business (B2B) e-Commerce (Teo et al. 2006); e-Business (Zhu et al. 2003; Zhu & Kraemer 2005; Zhu et al. 2006b; Lin & Lin 2008; Oliveira & Martins 2010a); e-Commerce and e-Business (Ahmad, Abu-Bakar, Faziharudean & Mohamad, 2015; Zhu & Kraemer, 2005), e-Banking (Ayana, 2014; Kurnia, Peng, & Liu, 2010; Toufaily, Daghfous & Toffoli, 2009), e-Government (Sara, 2012), Cloud computing (Harfoushi, Akhorshaideh, Aqqad, Al-Janini, & Obiedat, 2016), Mobile commerce (Alfahl, Sanzogni, & Houghton, 2012; Ammar & Ahmed, 2016; San, Catalan, & Ramon, 2012) and e-Readiness (Aboelmaged, 2014).

Other more recent studies have employed the TOE framework, these are in a Social commerce context (Abed, 2020); CRM Adoption stages context (Cruz-Jesus, Pinheiro & Oliviera, 2019); Software-as-a-Service (SaaS) adoption context (Oliviera, Martins, Sarker, Thomas & Popovic, 2019); Artificial Intelligence (AI) adoption context (Kumar and Kalse, 2021); Disaster Management DT context (Alhinai, 2021); IoT adoption context (Parra & Guerrero, 2020); DT adoption context (van Dyk & van Belle, 2019); Cloud computing use context (Picoto, Crespo & Carvalho, 2021) and Block-chain adoption context (Clohessy, Treibmaier, Acton & Rogers, 2020).

3.3.3 *Reasons for selecting TOE*

The TOE framework is suitable for this research for a number of reasons. Firstly, TOE is an organizational framework for technological innovation that has been examined across different disciplines and contexts and has proven its theoretical strength by offering consistent empirical support (Aboelmaged, 2014; Chatterjee et al., 2021; Oliveira & Martins, 2011). Furthermore, TOE is useful in investigating the readiness, adoption and deployment of various technological innovations (Oliveira & Martins, 2011). Therefore, as DT is an innovation process for which organizations need to adopt the right mindset (e.g. leadership and culture), assets (e.g. physical and intellectual), tools (e.g. technology, processes, and strategies) and environment (e.g. inter-organizational relationships, regulatory frameworks, and policymaking) (AlHinai, 2020), TOE is a suitable framework.

Secondly, Chatterjee et al. (2021) noted that the TOE framework has been utilised successfully in many e-Commerce contexts and thus as DT is part of such a context, TOE was deemed a suitable CF for this research.

Thirdly, according to AlHinai (2020), TOE is a generic framework that is highly adaptable with the three contexts providing sufficient conceptual boundaries, whilst offering space for knowledge development to expand the context with any other contextually relevant factors. Additionally, this conceptual flexibility provides depth, explanatory power and development of new knowledge (AlHinai, 2020). Thus the TOE Framework was an appropriate CF for this research.

3.4 Conceptual Framework - Application of TOE Framework

The generic nature of the TOE framework, which allows for more factors to be added within the specified three contexts, makes it possible for this research to specify the factors identified in the literature review by expanding current contexts with relevant factors. These factors which are DT leadership; DT strategy; Technology as an enabler for transformation; Digital workplace skills and Digital workplace culture fit within the TOE boundaries. This research builds on the TOE foundation to propose a conceptual framework below for the successful implementation of DT.

The application of the TOE framework for the study is depicted in Figure 6.

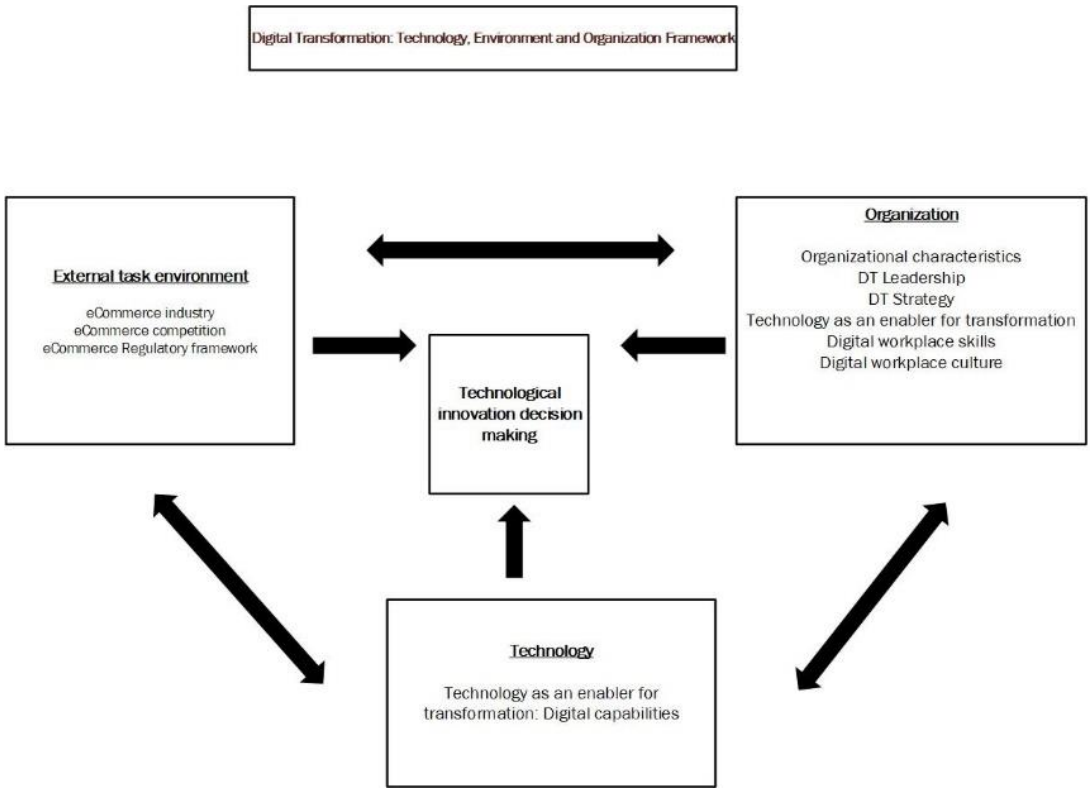


Figure 6: Conceptual Framework based on TOE framework adapted from Tornatzky and Fleischer (1990)

3.4.1 *Technology Context*

In the DT context, technology refers to digital capabilities that an organization deploys to enable DT (Uwamariya & Loebbecke, 2020; Oliveira & Martins, 2011). While technology merely serves as enabler for the

successful implementation of DT (Mugge et al., 2020), the availability of technology or digital assets is a key enabler of DT and thus within the study, sub-question (1) *what digital technologies are implemented in a retail DT and what are they used for?* will be used to understand the technology context in regard to the availability and characteristics of such digital capabilities within an organization (see Appendix A - Interview guide).

3.4.2 *Organization Context*

In the DT context, the organization context refers to organization's resources and strategies available for deployment of technology (Uwamariya & Loebbecke, 2020). These resources and strategies play an important role in determining whether an organization will be able to understand and embrace transformation driven by new digital technologies (AlHinai, 2020). The factors identified in the literature review are: DT Leadership; DT Strategy; Technology as an enabler for transformation; Digital workplace skills and Digital workplace culture. The organization context manifests in common organization attributes that can either facilitate or hamper adoption of innovation in an organization (Aboelmaged, 2014).

DT Leadership describes the ability of the organization to lead the DT effort from the front while displaying unique transformational leadership qualities (Kazim, 2019; Sainger, 2018). The style of leadership and leader characteristics influence DT (Kazim, 2019) and thus in this study, DT leadership was used to understand the organization context.

According to Eden et al. (2019) and Mahmood et al. (2019), an effective *DT Strategy* describes the objectives that the organization pursues through DT in respect to people, process, technology and others. A DT Strategy influences an organization's ability to understand and embrace DT and can either hamper or facilitate DT efforts, thus, in this research DT Strategy is an additional factor that was used to understand the organization context.

For *technology as an enabler* for transformation in the DT context, while the process of implementing DT successfully may start with the implementation of digital technologies, DT is much broader and spans organization wide transformation from organization culture, to leadership, to strategy and digital skills (Mugge et al., 2020). Therefore, in this research the organization's broader transformation efforts beyond implementation of the digital technology, is an additional factor within the organizational context.

Digital workplace skills in the DT context describes the digital skills required for employees to work with and be effective with digital processes and technologies (Gurbaxani & Dunkle, 2019). The organization's workplace digital skills can hamper or facilitate the success of DT and thus in this research was used as an additional factor to understand the organization context.

Digital workplace culture in the DT context, describes the dynamic culture required for DT to be successful which requires an organizational culture to embrace learning, innovation and be flexible (Gurbaxani & Dunkle, 2019). DT culture which can hamper or facilitate the success of DT, is the last factor that the research used to understand the organizational context.

To understand all the contexts above, within the study, sub-question (2) *how does the organizational context influence retail DT implementations?* will be used to understand the organization context (see Appendix A - Interview guide).

3.4.3 *External Task Environment Context*

According to Oliveira and Martins (2011) and AlHinai (2020), the external task environment describes the arena of business where an organization operates and includes the industry, the competition, government interactions, economic, political and macroeconomic landscape. In the DT context, this includes the e-Commerce industry, competition and regulatory framework

The *e-Commerce industry* while small compared to traditional retail industry, is an important industry which is growing rapidly and the growth far exceeds that of traditional brick-and-mortar retail (Goga, et al., 2019). This creates an environment for retailers who digitally transform to enter the market along with new online only retailers. The e-Commerce industry can hamper or facilitate the success of DT and thus will be used to understand the environment context.

The *e-Commerce competition* refers to the online retailers that are competing in the environment. This environment is made up of small and large retailers but dominated by two retailers as the largest online retailers (Goga et al., 2019). e-Commerce competition can hamper or facilitate the success of DT and is therefore used to understand the environment context.

The *e-Commerce Regulatory framework* refers to government dealings regarding e-Commerce in SA. While policy frameworks are required to regulate various dimensions of e-Commerce, in SA the e-Commerce market is not yet mature and government needs to be sensible of regulating too early and stifle the local market growth and development (Goga & Paelo, 2019; Goga et al., 2019). However, according to Goga and Paelo, 2019 and Goga et al. (2019), large businesses must be guarded through regulation from abusing their dominance and disadvantaging small businesses from accessing the market.

Due to the e-Commerce not being mature in SA and the need for government to caution against regulating too early (Goga & Paelo, 2019; Goga et al., 2019) the e-Commerce regulatory framework will not be applied in this research.

To understand all the factors above, within the research, sub-question (3) *How does the environment context influence DT?* will be used to understand the external task environment context (see Appendix A - Interview guide).

3.5 Conclusion

This section discussed a brief overview of the conceptual framework (CF), possible CFs were presented, and the CF selected was detailed together with the application of the CF.

4 RESEARCH METHODS

This section outlines the chosen methodology for the study, along with reasons for choices made. Firstly, the research paradigm and approach are presented, followed by the research design and strategy selected. Thereafter, the data collection and analysis methods that were used are detailed. Lastly, quality and trustworthiness as well as ethical considerations are presented.

4.1 Research Paradigm

While there are several types of research paradigms, the two main categories are: Positivist and Interpretivist paradigms (Bhattacherjee, 2012; Orlikowski & Baroudi, 1991). The Positivist paradigm requires that knowledge must be limited to what is measurable relying solely on theories which can be measured (Orlikowski & Baroudi, 1991). According to Bhattacherjee (2012) and Orlikowski and Baroudi (1991), the Positivist paradigm assumes that the reality is separate from context in which it appears, must be measured and therefore the researcher is external and independent of the context which presumably removes bias from the process. On the other hand, the Interpretivist paradigm is founded on the claim that social reality cannot be seen or explained with one perspective but rather is shaped by people's experiences and their context making it a very subjective process (Bhattacherjee, 2012; Orlikowski & Baroudi, 1991). Interpretivism is subjective and based on human experiences and their related social context (Bhattacherjee, 2012; Orlikowski & Baroudi, 1991). Interpretivist research is founded on post-positivism which Bhattacherjee (2012) argues that a researcher can make inferences within reason about a phenomenon using empirical observations combined with logic and the researcher is considered part of the social phenomenon.

The subjective nature of this research, which seeks to understand successful implementation of DT, requires both theory and logical reasoning to account for the researcher's thinking and/or understanding and respondents' contextual understanding and/or experiences for validation (Bhattacherjee, 2012) and thus it is necessary to employ the Interpretivist research paradigm (Bhattacherjee, 2012; Creswell & Creswell, 2018). Furthermore, as the researcher is employed in the e-Commerce division of the case organization, her understanding and experience of DT will shape the analysis and interpretation of findings (Creswell & Creswell,

2018). Therefore, an Interpretivist approach where researchers are often involved in the research context and thus are subjective (Bhattacherjee, 2012), was more suited to this research.

4.2 Research Approach

The two main approaches used to collect and analyse empirical data are Quantitative and Qualitative approaches (Bhattacherjee, 2012; Creswell & Creswell, 2018). According to Creswell and Creswell (2018), the approach selected is determined by the research paradigm and the method best suited to answer the research question.

Quantitative research approach utilizes experiments with the aim of collecting numerical data with score or metrics where in the researcher is completely independent of the research setting (Bhattacherjee, 2012; Creswell, 2018). Qualitative research usually utilizes methods which require rich description of individuals and culture (Creswell & Creswell, 2018), aims to gather more non-numerical data in the form of words such as interviews and observations and the data is collected in natural settings of respondents (Bhattacherjee, 2012; Creswell & Creswell, 2018).

As this research aims to provide a detailed analysis of respondents' subjective understanding of DT implementation phenomena in their natural context (Bhattacherjee, 2012), a Qualitative research approach was most suitable.

4.3 Research Design

According to Bhattacherjee (2012), there are three main types of research designs and these are descriptive research, explanatory research and exploratory research. Descriptive research design aims to make careful observations and detailed documentation of phenomenon relative to theory (Bhattacherjee, 2012; Yin 2014). Explanatory research design attempts to empirically understand the underlying reason for the relationships, why and how they occur (Bhattacherjee, 2012; Yin 2014). Lastly, exploratory research design is discovery oriented which aims to understand concepts that may not be previously understood or with limited research (Bhattacherjee, 2012). Yin (2014) contends that exploratory research collects data to look for patterns and understand what happening.

As this research aims to explore successful implementation of DT in the SA retail context where-in there is limited knowledge available, both descriptive and exploratory research designs were used.

4.4 Research Strategy

The three types of research strategies best suited to Interpretivist, Qualitative research are phenomenology, ethnography and case studies (Bhattacherjee, 2012; Creswell, 2007).

Phenomenology is a study of conscious experiences in order to understand reality and concerns itself mainly with reflection and analysis of phenomena associated with real experiences (Bhattacherjee, 2012 & Creswell, 2007). *Ethnography* is a research design that studies a phenomenon in the context of its culture over an extended period of time and data is collected through observation and in/formal interactions with respondents (Bhattacherjee, 2012 & Creswell, 2007). According to Bhattacherjee (2012), *case study* research, which studies phenomenon over a period of time in its natural context and collects evidence through interviews, observations and/or documents, is advantageous as it enables researcher to discover wide ranging factors about a phenomenon which may not be known prior and provides rich, detailed and contextualized interpretations. Furthermore, Bhattacherjee (2012) contends that case research is best suited for studying complex organizational change processes and large technology implementation projects of which DT implementation is.

As this study aims to research DT implementation in one retail organization in its natural context, a case study has been selected. In addition, as this study aims to provide detailed and rich descriptions of DT, a single-case design was appropriate (Bhattacherjee, 2012).

4.5 Data Collection

Data collection is a process of interrelated activities consisting of several stages with the aim of collecting information to answer research questions (Creswell, 2007).

4.5.1 *Collection Method*

According to Bhattacherjee (2012) Interpretive research mainly utilises observations, documentation analysis and interviews to collect data. *Observations* relate to what the searcher can see (Creswell, 2007) and this can be direct observations like attending meetings as a passive observer or participant observation where in the researcher is an active participant (Bhattacherjee, 2012). *Documentation analysis* is a process of reviewing documents (Creswell, 2007) these include internal and external documents that can be reviewed for further insights and can be internal reports or newspapers (Bhattacherjee, 2012). *Interviews* are a personalized way of collecting data, they allow the researcher to clarify questions and/or ask follow-up questions and these can be either be face-to-face or telephonic using open-ended questions or focused questions (Bhattacherjee, 2012). According to Creswell (2007), the choice between face-to-face or telephonic interviews must be informed by the ability to obtain rich and meaningful data to answer research questions. However, the most common interview type is that of face-to-face when it is practical to do (Creswell, 2007).

As this research aims to understand successful implementation of DT, interviews were used as they facilitate individual engagement with respondents, enables the researcher to clarify issues, probe and ask follow-up questions in their natural settings.

- ***Type of Interviews***

There are three types of interviews, these are based on the types of questions asked and they are structured, unstructured and semi structured interviews (Bhattacherjee, 2012). *Structured interviews* are planned closed questions which allow no variation, while *unstructured interviews* are open ended questions and semi-structured interviews is a combination of both (Bhattacherjee, 2012; Creswell & Creswell, 2018). Further, according to Creswell and Creswell (2018), the semi-structured nature of interviews allows the researcher to discover important information not previously available (see Appendix A - Interview guide).
Therefore, in this research semi-structured interviews were employed as it allowed the researcher to clarify questions and/or ask follow-up questions while being open to discover new information.

4.5.2 *Sampling*

There are five biggest retailers in SA (BuzzSouthAfrica, 2020), most of these retailers are gearing up their businesses or digitally transforming their operations for online retail market which is growing faster than traditional retail (Goga, et al., 2019; Mubako 2017).

- ***Case Study Site***

The case study site selected for this research is one of the largest retailers in South Africa. The case is selected for the following characteristics: 1) they are the second largest online retailer (Goga, et al., 2019) and 2) they are undergoing DT. The retailer has established a new e-Commerce division with the aim of establishing an online omni-channel capability to compete with SA's leading online retailer (RetailerX, 2021).

- ***Sampling Process***

Qualitative research calls for purposive sampling, for selecting respondents for a case study who are best positioned to understand the phenomenon being researched (Creswell, 2007). Purposive sampling allows researcher to intentionally select those respondents with the experience relevant to the phenomena being researched, in this case DT (Creswell & Creswell, 2018). Within the selected retailer, *purposive sampling,* which requires that respondents are hand-picked based on the experience with the topic of interest (Bhattacherjee, 2012; Creswell, 2007), was employed.

To ensure rich and diverse perspectives (Bhattacherjee, 2012) the respondents were carefully selected by the researcher to span various leadership and managerial roles across the organization who understand DT phenomena as they are directly involved with DT implementation. The selection of respondents focussed on those working with the digital technologies, in positions of leadership, working with strategy development, all of whom are managers with people responsibility and thus understand digital skills and culture dynamics.

Saturation is reached at a point when no new data, new themes or new codes can be generated together with replicability of the study (Alam, 2021; Ness & Fusch, 2015). While saturation may be reached at six respondents, this research employed a sample size of ten respondents, as it provided a lot of data which is not only multi-layered but detailed and nuanced (Ness & Fusch, 2015). Furthermore, a sample size of ten is suitable among homogenous people (Alam, 2021).

4.6 Data Analysis

Data analysis in Qualitative research is the process of understanding data obtained from interview transcripts to make sense of a phenomena and it requires an investigative and participant in-context mindset (Bhattacherjee, 2012).

4.6.1 *Analysis Method*

Qualitative analysis refers to the process of analysing the data obtained during interviews to make sense of a phenomenon, a process which relies heavily on the researcher's skills and knowledge of the social context (Bhattacherjee, 2012). Qualitative analysis strategies include: Grounded Theory; Content Analysis; and Thematic Analysis. Grounded Theory which uses inductive reasoning technique to analyse data about a phenomena in order to build theories, requires suspending any preconceived theoretical notions (Bhattacherjee, 2012). Content Analysis which employs systematic ways to analyze data (Schreier, 2013) by first sampling text, followed by dividing text into segments and finally applying concepts to segments (Bhattacherjee, 2012), allows focus on meaning of data as it relates to the research question (Schreier, 2013). Thematic Analysis which is a sense-making approach to systematically find relationships and themes from data (Boyatzis, 1998), however, the process has perceived empirical weakness due to the flexibility allowed in the process when decomposing the data (Holloway & Todres, 2003).

As this research aims to understand successful DT implementation and an existing CF was employed to guide the research, Content Analysis method was used.

4.6.2 *Content Analysis Process*

Content Analysis involves sampling selected text from the population of text, followed by identification and application of rules to divide text into separate units or segments for analysis, thereafter the concepts are constructed and applied to the separate units or segments and the last step is analysis of the coded data in the previous step to identify frequent themes, the context and the relationships between them (Bhattacherjee, 2012). According to Bhattacherjee (2012), for the Content Analysis process to be systematic, a structured procedure is required. This involves the following steps: 1) transcribing interviews; 2) convert transcripts into condensed protocols; 3) identify a preliminary category system from condensed protocol; 4) generate coded protocols and 5) analysis of coded protocols to generate understanding about the phenomenon (Bhattacherjee,

2012). These systematic steps reduce the possibility of interpreting data only through the researcher's preconceived assumptions (Schreier, 2013).

Therefore, within this research, the systematic process was employed.

4.7 Quality & Trustworthiness

The subjective and contextualized nature of interpretive research makes it appear less rigorous (Bhattacherjee, 2012). To ensure that study provides quality evidence, it is crucial to ensure the rigour and relevance of the findings (Bhattacherjee, 2012). Measures that will be employed for evaluation using are: credibility, dependability, confirmability and transferability which were applied in this research (Stenfors, Kajamaa & Bennett, 2020; Bhattacherjee, 2012).

4.7.1 *Credibility*

According to Stenfors et al. (2020) and Lincoln and Guba (1985), credibility refers to the plausibility of findings from the beginning, starting with the literature review up until the data collection and analysis used to present findings that are believable to readers. Credibility can be improved by availing evidence of engagement in the field, demonstrating data triangulation and maintaining a systematic process of managing data and analysis procedures (Lincoln & Guba, 1985).

In order to ensure credibility in this research, findings were strengthened through presenting the data collected, quoting the respondents as evidence where applicable and linking findings to specific concepts collected and analyzed. In addition, the de-identified recorded transcripts can be made available without records of contacts for confidentiality, similarly, interviews and notes of theoretical and methodological decisions to support credibility of the findings and allow for independent audit when required (Bhattacherjee, 2012).

4.7.2 *Dependability*

Stenfors et al. (2020) defines dependability as the extent to which the research could be replicated. According to Lincoln and Guba (1985), a study is dependable if more than one researcher can independently assess the same phenomena and arrive similar conclusions. Dependability can be improved by documenting sufficient details about the phenomenon as well as the context (Lincoln & Guba, 1985).

In order to ensure dependability in this research, 1) evidence and findings were explicitly and comprehensively documented to ensure that the research is replicable by other researchers and 2) the interviews were transcribed.

4.7.3 *Transferability*

According to Stenfors et al. (2020) and Lincoln and Guba (1985); transferability is the ability to transfer findings to another setting or context. Transferability is improved by providing rich and detailed descriptions of the context as well as describing the underlying assumptions, structures and processes revealed from the data (Lincoln & Guba, 1985). According to Yin (2009), transferability can also be improved by use of expert sampling.

To ensure transferability in this research, the influence of the context on the findings were documented in detail by providing descriptions of researcher, their relationships with respondents, processes used and the setting as well use of purposive sampling method to select respondents.

4.7.4 *Confirmability*

According to Stenfors et al. (2020), confirmability of findings refers to a demonstration of clear links between findings and the data used for analysis. Lincoln and Guba (1985) contend that confirmability is the degree to which findings can be independently confirmed by others and this can be improved by respondents agreeing with interpretations derived in the research. According to Lincoln and Guba (1985), confirmability is achieved only when credibility, transferability and dependability criterion are met.

To ensure confirmability in this research, all data collected was documented with verbatim transcriptions to ensure findings can be confirmed through data collected and was strengthened through use of quotations. An adequate trail was left to enable the auditor to determine if the conclusions, interpretations and recommendations can be traced (Pringle, Drummond, McLaffert & Hendry, 2011).

4.8 Ethical considerations

According to Creswell (2007), despite the choice of research approach adopted, all research ought to obtain informed consent from the case site and respondents to ensure all ethical requirements are met. The ethical principles that were adhered to in this research with regard to voluntary participation, informed consent, anonymity and confidentiality, confidentiality, disclosure and openness and integrity (Bhattacherjee, 2012), are presented.

Firstly, to ensure participation is voluntary, prior to the start of the interview, respondents were informed that their participation is voluntary, harmless, and that they were able to withdraw at any point in time during the process (Bhattacherjee, 2012). In addition, to ensure that the objectives of the research were clear to respondents prior to the interview (Bhattacherjee, 2012), a participation information letter (see Appendix B-1) was made available to the respondents.

Secondly, respondents were requested to complete an informed consent form that gives them the assurance of their right not to participate and withdraw without suffering any consequences (Bhattacherjee, 2012) (see Appendix B-2). In addition, consent to collect data at the case site was required, to achieve this, a formal request (See Appendix B-3) was sent to the organization representative requesting permission to undertake the interviews.

Thirdly, it was essential that respondents' confidentiality was ensured (Bhattacherjee, 2012; Creswell, 2007). In this research, even though anonymity is not possible due to the nature of data collection approach utilizing interviews with respondents (Bhattacherjee, 2012), confidentiality was preserved as findings of the final research report were not be linked to the respondents and direct quotes were attributed to respondents using pseudonyms (Bhattacherjee, 2012; Creswell, 2007). Furthermore, the data collected from respondents was treated with utmost confidentiality through ensuring that the contents of the interview was used for content only in the research and report writing without divulging the real identity of the respondents (Bhattacherjee, 2012) using pseudonyms instead.

Lastly, the researcher upheld values of openness and integrity in the data analysis process and reporting of findings (Bhattacherjee, 2012) as such only data collected through recorded interviews was analyzed regardless of whether it answers the research question favorably or not (Rosenthal, 1994). In addition, findings were reported based on data analyzed process and credited correctly to avoid misrepresentation (Rosenthal, 1994).

Ethical clearance was sought for at the School of Business Sciences following proposal defence by completing the relevant Ethics Forms accompanied by the request of permission letter to the case site, subsequently a signed permission letter from the case site was submitted, thereafter, the Ethics clearance was granted after-which, the data collection process commenced.

4.9 Conclusion

This section outlined the research design for the research, the research paradigm and approach were outlined, followed by the research design and strategy selected, thereafter the data collection and analysis methods were detailed as well as the criteria for quality and trustworthiness and ethical considerations.

5 FINDINGS

This section outlines the findings from the data collection process. Firstly, the data collection process employed, followed by an overview of the respondents interviewed are detailed in order to provide a detailed account of the sample. Thereafter, the findings are presented in relation to each of the sub-questions for the study.

5.1 Process

As this study aimed to understand the successful implementation of DT in a SA retail organization, the main research question *What does successful DT implementation in a SA retail organization entail?* was constructed. To answer the main research question, sub-questions using the TOE framework to guide investigation into digital enablers; leadership, strategy, technology, workplace skills, workplace culture and external environmental context were formulated. To collect the data, interviews were used to facilitate individual engagement enabling the researcher to clarify issues, probe and ask follow-up questions (Bhattacherjee, 2012). Data was collected at the case-site using a mix of face-to-face physical and virtual interviews. The choice of medium for physical or virtual interviews was due to respondents' availability as they have hybrid ways of working with some days in the office and others remote. The medium employed did not affect the richness of data collected, as according to Creswell (2007), the choice between face-to-face or telephonic interviews must be informed by the ability to obtain rich and meaningful data to answer research questions. All interviews were recorded and transcribed (see Appendix C – Sample Interview Transcript).

5.2 Respondents

Within the selected retailer, *purposive sampling* was utilised to ensure that respondents selected were knowledgeable about the DT taking place in the organization (Bhattacherjee, 2012; Creswell, 2007). Furthermore, respondents were carefully selected to span various leadership and managerial roles across the organization so that rich and diverse perspectives from those directly involved with DT implementation (Bhattacherjee, 2012) were captured. In addition, most of the respondents have extensive experience in retail industry. While saturation may be reached at six respondents, this research employed a sample size of ten respondents, as it provided a lot of data which is not only multi-layered but detailed and nuanced (Ness & Fusch, 2015). Furthermore, a sample size of ten is suitable among homogenous people (Alam, 2021).

The first respondent, *Davido,* has more than ten years of experience in retail and is responsible for the operationalization of the e-Commerce strategy. The second respondent, *Lilly*, has limited retail experience and is responsible for researching actionable customer insights to address e-Commerce opportunities. The third respondent, *Jamela,* has more than a decade in retail and is responsible for e-Commerce strategy operationalization, initiatives, insights and data. The fourth respondent, *Tamina*, has more than seven years of retail experience and is responsible for overseeing the execution of the Group turnaround and growth strategy. The fifth respondent, *Thomas*, has more than a decade retail experience in developed and African markets, is responsible for leading the digital business, a global DT leader involved in leading DT for developed and African markets. The sixth respondent, *Messi*, has more fifteen years' retail experience and is responsible for the Fulfilment function. The seventh respondent, *Patrick*, has more than a decade of retail experience and is responsible for the online sales channels. The eighth respondent, *Sassy*, has fifteen years' retail experience and is responsible for go-to-market strategy and projects. The ninth respondent, *Brigadia*, has nearly two decades'

retail experience and is responsible for leading the Information and Communication Technologies. The tenth respondent, *Tendani*, is responsible for digital strategy and while she only has a few years' experience in retail she is a seasoned Information Technology executive in field of Strategy development and implementation.

Table 2: Summary of respondents

No	Pseudoname	Gender	Function	Retail experience
1	Davido	Male	Strategy	10 years
2	Lilly	Female	Insights	Less than 5 years
3	Jamela	Female	Support	10 years+
4	Tamela	Female	Group Strategy	5 years+
5	Thomas	Male	Digital business	10 years+
6	Messi	Male	Fulfilment	15 years+
7	Patrick	Male	Online sales channels	10 years +
8	Sassy	Female	Strategy and Integration	10 years +
9	Brigadia	Male	Information Technology	20 years +
10	Tendani	Female	Information Technology	Less than 5 years

Table 2: Summary of respondents

5.3 Digital Transformation

To understand what people within the organization think about DT (q1) *please define retail DT?*; (q2) *In your opinion what key areas of the business will be impacted by DT?;* (q3) *How are the key areas impacted by DT?; and* (q4) *Is there anything you would like to add regarding DT?* were asked.

Findings indicate that most of the respondents understand retail DT involves **using technology to improve traditional ways of working** "*it's the evolution of retail into more digital way of shopping…moving from typical bricks and mortar space…with the use of…digital tools*." (Jamela); "*the use of technology to improve…the way of doing business…to be available to your consumers through online platforms*" (Lilly); "*moving from doing things the traditional manual way, to digitizing anything that can be digitized*" (Davido); "*connecting different parts of the business through digital tools*" (Patrick); "*transforming the way in which we use our systems and enhancing our systems…digitization of retail, it's trying to find the human intervention that can be systemized or digitized*" (Sassy); "*taking traditional processes and traditional ways of working…and looking for opportunities where technology can replace those processes or accelerate them*" (Thomas).

In addition to using technology to improve traditional ways of working, some respondents believe DT requires a **complete rethink of business processes** "*three-step process…digitize your operations…getting rid of*

paper…to change the way that you run your organization" (Lilly); "*improving processes, systems, ways of working and enabling an Omni-channel environment*" (Patrick); "*enabling new ways of addressing that, creating new business models, creating multi-sided business models"* (Tendani) as DT is not **merely about technology or the e-Commerce sales channel** "*it's not necessarily an element of e-Commerce, or just being able to get onto a website and purchase what you want*" (Sassy); "*technology is merely a part of the DT process, it is not technology by itself*" (Brigadia); but rather needs to consider how DT fits into the **organization's strategy** *"has to be driven at a strategic level"* (Messi); *"it needs to meet retail strategic objectives"* (Brigadia) and **creates competitive advantage** "*it's more than just digitizing processes…it's about building a competitive advantage...understanding that you become a data led organization*" (Messi); "*there's a lot of ability to be more competitive and to transform the landscape by looking beyond the basics…being able…to offer a really comprehensive, good quality, immersive experience…walking out of the store with a product that you could touch, feel and almost experience*" (Tendani).

Furthermore, according to some respondents, DT **transforms the environment for the customer and the employees** "*serving our customers in fundamentally in different way…creating a customer and an associates experience…that is digitally connected and Omni-enabled*?" (Tamina); "*allow efficiencies, simplification and improved experiences for employees and for customers*" (Thomas); "*from an engagement or trading with our customers, changing that environment to bring digital aspects of trading with customers*" (Sassy); "*meet your customer requirements in a way that simplifies and improves their experience…internal customers too…our employees who serve our customers*" (Brigadia); "*understanding your customers…to integrate the analog world with the digital world*" (Tendani).

Lastly, findings indicate that respondents believe that **ethical concerns** surrounding DT arise "*now you have people who are redundant*" (Messi); "*majority don't have… skills fit…to pivot into different roles*" (Davido); highly **unionized environment prone to strikes** "*they prone to strikes and all sorts of issues and you have to deal with business interruption*" (Messi); "*very unionized environments are anti mechanization"* (Davido); while others feel these **concerns can be averted** "*upskill these people to deal with more complex customer facing value adding functions*" (Messi) by **repurposing people to focus on customer service** "*use natural attrition let people go? Or…we start teaching people to program teaching people to do things that are more aligned to the other DT?"* (Davido); *"you're upskilling, your reskilling"* (Lilly); "*use digital to kind of help them (associates) focus on doing the right type of work in the right way*" (Tamina).

5.3.1 *Key Areas Impacted by DT*

Findings indicate respondents believe that DT transforms every part of the business, with the key areas identified as customers, associates, vendors, leadership, strategy, culture, the associated processes and infrastructure.

Respondents believe that DT influences **all areas of the business** "*it touches all parts of the business.*" (Messi); "*it touches on every aspect of the business"* (Tendani); "*across the entire value chain*" (Patrick); "*technology*

infrastructure…processes…people" (Lilly); "*home office environment…in a store…supply chain…Pickup and Delivery areas…Warehousing, your Fulfillment centres, because a lot of what goes on behind the scenes in e-Commerce is driven by people still*" (Davido); "*Head-office buying, planning, supply chain, absolutely every touchpoint, in a store, human capital, (new) job profiles (for new roles)"* (Jamela); "*strategic imperatives…budget…decisions (making)…call centres…accounts payable, accounts receivable...it is extremely labor intensive…merchandising and planning spaces*" (Messi); *"supply chain perspective, all the way through to in store technology that serves the customer better…"* (Patrick); "*HR organization…e-Commerce*" (Thomas); *"integration of all businesses and their offerings"* (Tamina).

In addition, respondents indicate that **customer experiences** are impacted greatly by DT "*it's all about serving customers*" (Patrick); "*most critically for our business is the customer*" (Tamina); "*a big part is digitizing the customer experience*" (Sassy); "*all customer touch points with our organization*" (Brigadia); "*understanding how customers see you and perceive you in the world…to be responsive to your customers*" (Tendani). Furthermore, respondents believe that **associate[2] experiences** "*store associates*" (Tamina); "*associate facing digitization…that is to remove the friction it creates to do your job better…Category Management…we still have lots of manual intervention…reports…nothing from a click of a button that can be able to show you a trend over time*" (Sassy); "*the way associates engage with the organization…the way we serve our associates and make sure that they're capable of doing the roles that they've been hired for*" (Thomas) and **vendors' experience** "*our vendors…all the areas of the organization who interact with vendors"* (Brigadia) are also impacted.

In addition, respondents believe DT impacts **leadership** "*number one is your it's your leadership*" (Messi); "*leadership"* (Jamela); "*leadership is crucial to DT*" (Tendani); **strategy** "digital strategy" (Lilly); and **workplace culture** "*because there's a lot of already deep rooted culture, coming from like a brick and mortar environment*" (Lilly); "*culture in the organization is pivotal in terms of DT*" (Sassy); "*the biggest…it's more about mindsets*" (Thomas); *"workplace culture is probably one of the biggest components…mindsets"* (Tendani); "*can't have transformation without a shift in the mindsets of everyone*" (Patrick); "*actually the mindsets"* (Tamina); *"a different mindset"* (Jamela).

Lastly, respondents report that DT also **creates new opportunities for the organization and small business** "*new functions in the business"* (Jamela); "*small businesses…where they have never had an opportunity before*" (Patrick); "*a growth in marketplace activities…they provide a platform for smaller business*" (Tendani).

5.3.2 *How the key areas are impacted by DT*

Findings indicate that the key areas identified are impacted by DT in relation to technology; mindset; leadership; strategy and culture; new areas of the business; customer experience; associate experience; processes.

[2] Associate is used to refer to employees in the organization

- ***Technology***

Respondents report that they believe that through DT, **processes will be more streamlined** "*we…simplify processes*" (Brigadia); "*streamlined processes that enable agility*" (Lilly); "*a store manager will have a structure to facilitate the digital side of the business…deliveries, click and collect…more stock holding in Distribution Centres (DC) to fulfil e-Commerce sales*" (Jamela); "*the right in stocks…customers purchasing decisions*" (Patrick); and many **functions will be automated** "*automating paper-based HR processes, finance systemizing their steps as much possible and e-Commerce digitizing traditional ways to access customers…a store manager will have a structure to facilitate the digital side of the business…deliveries, click and collect*" (Thomas); "*automated packing system…automated warehousing system…in store you don't need people to do stock takes anymore*" (Davido).

Furthermore, DT provides the possibility of **improving current technology** "*there's also our website*" (Sassy); "*to upgrade technological infrastructure to run e-Commerce*" (Lilly); **providing a greater assortment of products** "*provide massively diverse assortment of products, and doing that seamlessly*" (Tamina); and **using data to inform decisions** "*understanding…data…use data to create insights that drives the decision making"* (Tendani); "*you become a data led organization*" (Messi). However, findings indicate respondents have **concerns on DT being fully leveraged to automate processes** "*our country in terms of its development is still far from that…our population and the level of education hampers the progress*" (Davido); "*in this country, DCs…they prone to strikes…and you have to deal with business interruption*" (Messi).

- ***Mindset***

To achieve DT in the organization, respondents also believe that **mindsets need to shift** "*actually the mindset difference in understanding that things change so quickly…become like more digital in our thinking…not only technically but in the mindset*" (Tamina); "*a different mindset*" (Jamela); "*it's more about mindsets and change and comfort level and acceptance…most of this (digital workplace skills) stuff is basic enough to where people accepted the change they were of the right mind, they could learn it*" (Thomas); "*So the mindsets to understand that you're constantly going to have to develop digital skills, the learning mindset, the growth mindset is important*" (Tendani).

- ***Leadership***

Findings indicate that DT also impacts **leadership** "*leadership is core*" (Lilly); "*it is one of the key areas…to pivot the ships into the digital way of working*" (Jamela); "*leadership becomes incredibly important…leadership at all levels*" (Thomas); "*it's critical that leadership plays a role*" (Patrick); "*yes…leadership plays a huge role in changing what was to what needs to be…doing things in a different way*" (Sassy); "*it does*" (Brigadia); "*leadership is crucial to DT*" (Tendani); "*leadership gives structure, gives direction*" (Davido); "*need someone to lead it…leadership that understands what is to operate in the digital world"* (Messi).

- ***Strategy and Culture***

DT also impacts strategy by **ensuring that there is direction for DT** "*digital strategy…you have to have a conscious direction, when it comes to the way that you roll out your DT*" (Lilly); "*strategy is important where DT is concerned…understand what the company's overall ambition is, and then what role that DT play in that*" (Davido); "*so that you know in the direction that you're going in*" (Jamela); "*strategy is definitely required to give context to where the business wants to end up…informs almost everything else throughout the planning process*" (Patrick). In addition, some respondents feel that DT makes the **organization's culture more agile** "*to create the right culture…create a culture of intrapreneurship…culture of agility*" (Lilly); and **digital** "*we have to have a culture of digital…embracing change that digital brings"* (Tamina).

Furthermore, DT creates **new areas or functions and opportunities for small businesses** "*pickup and Delivery…a whole new department…25 to 30% of associates belong in the pickup and delivery structure*" (Jamela) "*smaller players to get into e-Commerce, to reach a customer nationally…where they have never had an opportunity before*" (Patrick).

- ***Customer Experiences***

Findings indicate that DT impacts the customer experience by allowing employees to **focus on the customer** "*improve the experience of customers, employees, vendors"* (Brigadia); "*hone in on the customer experience…focus on the customer again…customer is important"* (Tamina); "*focus on human centred customer service*" (Davido); "*to be responsive to your customers and responsive to the market*" (Tendani); through **using technology** "*technology that serves customer better*" (Patrick); *"digitize substitution process so that the customer has the power*" (Thomas); *"think digital is probably the most critical unlock for us to be able to do that going forward"* (Tamina). Consequently, respondents report that DT enables the organization to **keep abreast of evolving customer needs** *"the changing behaviours for customers?"* (Tendani), enabling **faster checkouts** *"faster lanes or aisles, checkout, electronic shelf labels, connecting a physical world to a digital world with QR codes"* (Patrick); *"the checkout express"* (Sassy); **helping customer make better purchase decisions** "*better purchasing decisions…in store or online*". (Patrick) and **creating a single customer journey across the business** "*integrate all our different banners and our different services going forward…the banner (brick and mortar) and e-Commerce*" (Tamina). Furthermore, findings indicate that DT impacts the **vendors** "*through DT…we will improve the experience of vendors"* (Brigadia).

- ***Associate Experiences***

Findings indicate that DT also impacts the associate experience by **improving work processes through automation** "*remove the friction it creates to do your job better*" (Sassy); "*through DT…we will improve the experience of employees"* (Brigadia); "*instead of focusing on paperwork…they can do things…seamlessly through digital…use digital to kind of help them (associates) focus on doing the right type of work in the right way…HR is using digital to transform the associated experience who is their customer*" (Tamina); "*you need people to do the*

work of humans, which is customer service" (Thomas); **providing digital tools** "*…a CRO who is able to capture an order online, which previously it wasn't available*" (Sassy) and **upskilling staff** *"your employees…to be upskilled, so that they can work in this fast-changing environment…culture aspects, training aspects*" (Lilly).

- ***Processes***

Findings indicate that DT facilitates foundational changes in processes, respondents envisage these to include: **digitizing the store and fully automating work** and **checkout process** "*in a store…you won't need tellers (cashiers)…use automatic checkouts…You don't need people to do stock takes…use RFID (Radio Frequency Identification) scanning across the store"* (Davido); "*the self-checkout*" (Sassy)*;* **automating inventory processes** "*automated replenishment process*…*Digitization of inventory*" (Thomas); **automating workforce processes** "*workforce planning, workforce scheduling will be digitized…on…handheld device*" (Thomas); **automating dispatch and delivery processes** "*digitization of the order dispatch process*" (Thomas); *"deliveries…can be automated with drones*" (Davido); **digitizing the physical store** *"pure automation using robots to perform mundane tasks…automation for e-Commerce through dark stores…function of pick, pack dispense are done by robot…end to end customer chain, digitize all the way with automated robots and cars and drones for delivery and also being pro-active with click and collect to which removes many inefficiencies in current process*" (Thomas); and **automating high transactional areas with low value** *"accounts payable, accounts receivable…you put robotics down, you could probably reduce that workforce by half…automation in the DC*" (Messi). Furthermore, findings indicate opportunities exists where **products can be available based on customer real-time demand** "*selection of what products…they produce based on real-time request…produce it on a back of that immediate demand*" (Patrick).

5.4 e-Commerce Environment

In order to understand the e-Commerce environment, the following questions; (q1) *How would you define the retail e-Commerce industry?*; (q2) *Please define the retail e-Commerce landscape*; (q3) *How do you believe your organization fares in this landscape?*; (q4) *Is there anything you would like to add regarding the e-Commerce environment?* were asked.

5.4.1 *Retail e-Commerce Industry in SA*

Findings indicate that while the retail e-Commerce industry in SA is in its infancy i.e., **nascent**[3] *"is quite nascent, it's new…it's started to grow"* (Davido); *"in its infancy"* (Jamela); *"if you think of a maturity curve…today, e-Commerce…it's now growing but it's not mature"* (Thomas); "*still very nascent"* (Messi); *"an environment with potential"* (Sassy); *"very basic kind of online presence and experience…still immature in our markets"* (Tendani); *it is maturing off a relatively low base*" (Brigadia); "*huge potential…a lot of untapped potential*" (Tamina); it is a

[3] Especially of a process just coming into existence and beginning to display signs of future potential

significant sector with **high expectations of growth as it matures** *"at about 4% contribution to retail…expected to be 10% or more by 2028 or 2029 and in that time…becomes Phase three, now mature business material…it is significant…because it takes three to five years…to build the capabilities, build the technology, people have to be trained and learn about it, because…the traditional retail doesn't operate this way*" (Thomas)*;* "*in the next five years, I think we're going to seeing e-Commerce…in the region of about 11, 12, 13% of sales*" (Messi); "*we predict that are in the next 10 years, we will catch up with the rest of the world*" (Davido); "*SA and Africa are in a space of massive potential and massive growth opportunity relative to almost the rest of the world*" (Patrick); "*there's a great deal of opportunity in the market*" (Brigadia); "*I think it's going to accelerate quickly*" (Tamina). Despite its potential, Tamina cautions that **many issues need to be addressed to realise this potential** *"there's a lot of things we have to solve for, but once we solve for that, massive, massive potential*".

Not surprisingly, respondents believe that **COVID-19 played a key role in the e-Commerce growth trajectory** "*COVID has tilted e-Commerce into being the next big thing*" (Davido); "*the pandemic majorly impacted and influenced the retail space…were pushed to develop this e-Commerce environment very fast*" (Lilly); "*COVID alone has shown us that potential, but I don't think it's unlocked nearly as much as we can"* (Tamina) "*COVID started stuff for us*" (Messi).

- ***Challenges to Growth***

Despite the potential for growth, some respondents believe that **trust issues** may hamper growth "*people are still scared…security is a big thing online, cybercrime…are big issues…it's education*" (Davido); "*there's the broader demographic that probably doesn't quite trust e-Commerce*" (Tamina); "*a lot of trust issues about shopping online*" (Patrick). However, some respondents believe **trust is no longer such an issue due to customer experiences during COVID-19** *"pre-pandemic, that was more like the low maturity…people…not trusting of the system there's a lot of comfort from a consumer perspective…starting to be more relaxed and more trusting of the system…were forced to experiment and…came out with a different consumer mindset*" (Lilly); "*it forced a lot of people to behave in a certain way…some people who had all these trust issues…you shopped online, then you realize my trust issue was all for nothing…because these are reputable brands, now that's no longer an issue*" (Messi).

In addition to trust, some respondents believe that growth is limited as **DT mainly targets affluent customers** "*solutions are…driven by more affluent customers*" (Sassy); "*e-Commerce has been very targeted at upper income consumers to date*" (Brigadia)**. In SA, there is a large** number of **unbanked customers** "*a massive unbanked base of customers"* (Patrick); "*if you look at our population and income groups…is a huge portion of our population that is relatively underserved or unserved*" (Brigadia); "*how can you sell to more people particularly at the bottom of the pyramid, without expecting them to have…latest phone…how do you use this digital access to benefit more people?"* (Sassy); and **many people do not have addresses for deliveries** "*low-income population who's living in kind of townships where there's no address*" (Tamina); "*in many cases, addresses that are not exactly easy to*

find" (Patrick). Consequently, some respondents feel that **there is risk of stagnation** "*we are going to stagnate faster than we think…unless we find ways in which we can access that bottom of the pyramid*" (Sassy); unless these **challenges are addressed** "*you need certain things to happen first…access to the banking, access to technology*" (Davido); "*so there's a lot of things we have to solve for. But once we solve for that, massive, massive potential*" (Tamina); "*access to smartphones, access to internet…there's already a lot of limiting factors in terms of who can participate in this e-Commerce space"* (Lilly). Importantly, the challenges **require unique solutions tailored for SA** "*it's got its own unique challenges, which make it hard to understand and serve better…it can't be duplicated on the back of what happens or works elsewhere in the world. It requires a unique approach to understand the challenges faced in SA, or Africa…to find African solutions for African problems*" (Patrick); "*we need to think about e-Commerce solutions in a different way perhaps than in more developed mature markets*" (Brigadia). In contrast, Lilly believes **growth will continue "***growth will continue as consumers now already have that comfort for the space*".

5.4.2 *Retail e-Commerce Competitive Landscape*

Findings indicate that while the current e-Commerce landscape in SA is dominated by one **local online only company** *"it is by far the biggest…40% market share"* (Davido); "*40% is with one company*" (Messi); *"there is one big player which are like giants in the space…with about 40% market share"* (Lilly); *"we've got the dominant one"* (Sassy); *"the pure play is dominated by one company"* (Patrick); there are **multiple international companies** *"have international players"* (Davido); *"20% with foreigners"* (Messi*); "outsiders which are the cross border players"* (Thomas), **traditional retailers going online** "*7% is with Omni-channel"* (Messi); *"the biggest sellers…have massive established brick and mortar businesses are now moving online*" (Davido); *"recently seen a huge push towards on-demand services and hybrid components*" (Patrick); "*websites were very much linked to store locations and store stock…starting to work with inventory outside of a store base…and then on-demand is part of that*" (Brigadia) and **smaller companies** *"small players in niche parts"* (Davido); *"there's hundreds of smaller businesses"* (Messi) that exist.

While many players exist, findings indicate that **only a few players operate in multiple categories** *"currently you have a few big players across a number of different sectors…big organization…are a multi-category"* (Davido); "*we're all competing for different segments…some of the biggest categories online is electronics and we the second biggest electronic player next to the major player*" (Messi); "*there's…desire to move away from participating in e-Commerce to actually dominating in each retailers' respective industry, whether it's fashion or general merchandise, whatever the case is food*" (Patrick).

- ***Pure Play vs Traditional Retailer***

Findings indicate that respondents believe **pure-play companies** operate better in the e-Commerce space "*that's where the pure play guys won initially…they were much faster out of the starting blocks*" (Jamela); as they have **first mover advantage** and **have created a huge gap in the market** "*the pure-plays don't have the*

baggage…have a lot of advantages…you're designing yourself for the opportunity at hand…got no politics…more nimble…can build their technology on day one" (Thomas). However, some respondents believe **challenges do exist** "*true e-Commerce players were riding the wave upfront…they're starting to drop off now as of six months ago*" (Jamela); "*they have a lot of downtime, they burn more money, they don't have the maturity and discipline, P&L management, because they're born into a world where they make losses, they don't have stock, they don't have supplier relationships*" (Thomas).

Regarding **traditional brick-and-mortar retailers going online,** findings indicate challenges exist as these organizations need to **build on existing processes** "*traditional retailers have had to build e-Commerce on top of the existing processes and…that will grow slow because there's so much building that has to happen from scratch, changing the supply chain, changing what their warehouse looks like, changing the…distribution strategy, changing building these platforms, and infrastructure*" (Jamela); **reinvent themselves** "*have to figure out how to reinvent themselves…they have all this baggage…got to make this thing work with the existing technology that's not designed for this…got their existing people with old school thinking so then these guys don't want to change…"* (Thomas); and **consider their legacy systems** "*everyone is fighting the same battle…dealing with legacy systems, legacy thinkers, legacy doers, and trying to transform their own company*" (Patrick). Despite these challenges, some respondents believe **access to an existing customer base** "*as the mature old school retailers get their e-Commerce and DT progressing…already have the customer base and the trust, they're going to be migrating customers…to the digital platforms, they have the edge going forward*" (Jamela); *"it's not like an organization that's coming from scratch"* (Lilly); "*we are not starting from scratch…we already established, we understand retail, we have relationships, we have assets, and we have capabilities that we can leverage*" (Thomas); "*it has the ability to profit because they're using existing profits, they're not a new start-up business*" (Thomas); and a good **past reputation** "*you've built a reputation by having physical stores when you go online it's trust*" (Messi); *"because the brand was built out of the brick and mortar"* (Lilly); benefits traditional brick-and-mortar retailers.

- ***International and Small Players***

Findings also indicate that even though **international players** are important as they have **broad range of products** "*they bring a broader international* assortment" (Davido); "*you want to have the broadest assortment*" (Lilly); "*the assortments locally…are not sufficient for the customer needs and therefore someone's willing to wait to get something shipped*"(Messi); the **lack of local presence** "*they don't have local presence"* (Thomas) and **international fees** "*the assortments also governed…by things like import duties, exchange controls*" (Davido); **can be challenging**. For the **smaller players,** while **lack of reputation** is a challenge "*a challenge growing because there's this reliability, trustworthiness question mark*" (Messi); Patrick believes their **small size is an advantage** "*for smaller players to get into e-Commerce, to reach a customer nationally…they have never had an opportunity before…doing a phenomenal job of just serving the customers*".

5.4.3 *Organization's Standing in Competitive Landscape*

Respondents believe that while the organization had a **slow start to DT** *"we've started from quite a low base…fell behind the ball from an e-Commerce perspective*" (Tamina) due to **lack of focus** "*we didn't get serious early enough, so we were a little bit late*" (Thomas); **crucial e-Commerce capabilities** "*we were slower to build certain crucial e-Commerce capabilities*" (Brigadia) and **fragmented investment** "*the federated model* [4] *which prevented the bulk of group capabilities around e-Commerce…there was a period of fragmentation in our investment*" (Brigadia); they are **second biggest player in retail e-Commerce in SA** "*we the second…we control…about five or six percent*" (Davido); *"we fare quite well…about 3% market share*" (Messi); "*we are the second biggest e-Commerce business in the country*" (Patrick); "*we're second*" (Sassy); "*one of the top players…because of the size of the organization, well set to compete*" (Jamela).

- ***Current DT Plans***

Respondents report that the organization is **furthering its DT plans** through **more investment, strategy, better technology capabilities** and **leadership** "*good news is we've done it and we brought in expertise capabilities…put in serious money…have the largest technology organization in SA today…should get to catch-up and get the biggest result*" (Thomas); "*we are building the necessary muscle to be able to get to where the major player is over the next couple of years…we've got strategies…to get there*" (Messi); "*we brought e-Commerce capabilities together under a single leadership and that has helped us move more quickly*" (Brigadia); "*with the recent investment…and the centralization of e-Commerce in a…multi-brand business…has allowed the business to scale in many different ways*" (Patrick); *"we've had a massive focus on e-Commerce…reflected in the doubled or triple digit growth"* (Tamina).

In addition, respondents believe this renewed focus is made possible through leveraging the **strong brand, backing from shareholder, growing e-Commerce business and assets in their arsenal** "*have a strong brand presence in the landscape*" (Lilly); however Thomas explains that they are backed by their shareholder whose experience can also be leveraged "*we're a big business, we've got capital"*; "*we backed by our shareholder…we've got access to technology*" (Davido); "*our connection with the shareholder…leveraging assets, like the development facility in India, who have lessons from across markets around the world, taking best practices*" (Patrick); "*having the backing of the shareholder who's gone through this has certainly helped*" (Tendani). "*We have so many assets that we…our delivery capability, our on-demand capability and…we've made huge strides on bringing all those assets together*" (Tamina); "*the structure is in place and they have had funding and have made two acquisitions*" (Jamela). Despite this focus, Patrick cautions that there are **downsides to some of the approaches** "*in some cases…the centralization, it's made even more complex, because there is a blurred line of who owns what and who has final say*".

[4] Federated model is when subsidiary businesses are operated independently of each other

- ***Future DT Plans***

Findings indicate that despite current plans, there **is a lot of work to be done** "*we mustn't be complacent…mustn't lose sight of the fact that we've still got a lot to do*" (Tamina); "*there is still a lot of…work that needs to be done in terms of this e-Commerce landscape"* (Lilly); "*there's still a lot of work to be done*" (Jamela). Areas that need to be addressed are **gaining customer confidence** *"to get that consumer confidence…that speaks to the end-to-end value-chain of the e-Commerce customer journey…from how easy is it for me to find the product…from me landing on your site…all the way to delivery options*" (Lilly); **addressing payment issues** "*important to our environment in terms of payments…we don't have cash-on-delivery…it's very high up on the major player's proportion of sales, that's a gap*" (Jamela); **improving the customer experience** "*I don't find the user experience superior to our FMCG competitors*" (Jamela); **leveraging omni-channel capabilities** "*we're still…a little bit e-Commerce and stores…if we don't bring those together, we will fall short*" (Tamina); "*moving away from eCommerce tied to physical store*" (Brigadia); "*most of our e-Commerce…a like for like comparison…they just take what they've got in the physical store and make it available online*" (Tendani); **providing greater product assortment** *"you want to have the broadest assortment…especially when you're trying to create a marketplace environment*"(Lilly); "*the assortments locally…are not sufficient for the customer needs"* (Messi) and **changing processes** "*building…a customer office that centralizes customer office…to bring that kind of seamless experience…can combine e-Commerce and traditional retail to become a truly Omni business with footprints*" (Tamina).

- ***Challenges***

Furthermore, findings indicate that **the organization has challenges of a being a traditional brick-and-mortar retailer with** regards to **departing from the old to the new** "*we have the same challenges as every other retailer…the complexity of a matrix organization and legacy that comes with traditional retail…the notion of that we've always done it this way…it's an education thing, sometimes it's an ego thing… it is legacy systems…retrofit a modern technology or modern way of serving customers into ERP systems or store systems and processes which are incredibly old school*" (Patrick); "*have had to build e-Commerce on top of the existing processes and…that will grow slow because there's so much building that has to happen from scratch*" (Jamela); "*they have all this baggage…got to make this thing work with the existing technology that's not designed for this*" (Thomas). In addition, some respondents feel that **people are averse to change** *"got their existing people with old school thinking so then these guys don't want to change*" (Thomas); "*so they're very averse to…digital…changes that we make*" (Davido). Other challenges include **no single way of viewing the customer across the business** "*is giving a customer...the same experience on e-Commerce or better than you can have on the store*" (Tendani); "*we want to have an enterprise customer who can shop the enterprise and digital plays such a critical role for them to be able to do that."* (Tamina); "*how should we treat our customer as a holistic enterprise customer…listening to the customer and actually adapting the way we operate* (Jamela) and the **decentralized structure** of the organization "*the federated model which prevented the bulk of group capabilities around e-Commerce*" (Brigadia).

5.5 DT Leadership

In order to understand DT leadership, the following questions; (q1) *Please explain whether you believe leadership plays a role in DT?*; (q2) *What key elements of leadership do you consider important for DT*?; (q3) *How do these elements play a role in the implementation of DT?*; (q4) *Is there anything you would like to add regarding the role of leadership in DT?* were asked.

5.5.1 *Role of Leadership in DT*

Findings indicate that respondents overwhelmingly believe that **leadership is at the centre of DT** "*leadership is core*" (Lilly); "*leadership does"* (Davido); "*one of the key areas, one of the biggest opportunities…I think that leadership plays an enormous role*" (Jamela); "*100% leadership plays an important role*" (Tamina); "*leadership becomes incredibly important*" (Thomas); "*leadership in the DT space is probably even more important than ever*" (Messi); "*it's critical that leadership plays a role*" (Patrick); "*leadership plays a huge role in changing what was to what needs to be…doing things in a different way*" (Sassy); "*leadership does*" (Brigadia); "*leadership is crucial to DT*" (Tendani); **especially in traditional retail organizations where people are change averse** "*you're dealing with a psychology and a mindset and a human being in an era that is not naturally up for change …you will have people intentionally or unintentionally stifle the transformation*" (Thomas); and you have **entrenched leaders** "*20 to 30 years…through the process of building…cannot necessarily see the e-Commerce opportunity"* (Sassy).

Respondents claim that without leadership **DT is not possible** "*they may not transform because people are usually change averse…somebody needs to be at the helm*" (Davido); "*can't work without it...has to be a core requirement*" (Patrick); "*because digital is a mindset more than a technology or process*" (Tendani); "*pay too little attention to…the human element…which includes leadership…we give lip service to the human factor*" (Thomas). Respondents believe leadership gives **DT direction** "*vision*" (Sassy); "*leadership gives direction …they will put the structures in place*" (Davido); "*where the leader is taking decisions, taking risks, familiar with the international landscape, familiar with the strategy knows what we need to do …to pivot the ships into the digital way of working, one customer mindset*" (Jamela); "*clarity of seeing in the future…clear roadmap*" (Messi); **gets people to buy-into DT** "*bringing the people on the journey with you*" (Lilly); "*ability to take people along the journey*" (Messi); "*bringing on everyone for the journey*" (Sassy); "*be able to take the organization on that journey*" (Davido); and enables organizations to **manage conflict** "*there is conflict when you introduce change into an organization*" (Thomas).

Furthermore, respondents feel that for DT to be successful **leadership must be present at every level within the organization** "*leadership from the top, which is the CEO of Exco…second layer is the functional layer where the people who have to be accountable for work… third layer is the layer of leadership where work gets done… you need leadership at all levels*" (Thomas); "*it cannot be ownership of one role or one team…has to be foundational*

and stem from the very top all the way through the entire business…it should be demanded from the shareholders…the board and the CEO" (Patrick); "*don't believe that DT sits in one part of the organization…DT has to be a capability that every single business leader understands and embraces*" (Brigadia).

5.5.2 *Key elements of leadership important for DT*

A number of key elements to consider in the leadership of DT efforts as mentioned by respondents include leadership style, buy-into DT, the character of a leader, leadership skills and leadership experience.

Firstly, respondents feel that **leadership style is key** "*you need a visionary leader…that understands the benefits of DT…you just need somebody that's passionate about the change they can envisage*" (Davido); "*transformational leadership*" (Thomas); "*inspirational leadership, charisma…gravitas and inspirational leadership charisma*" (Tamina); "*responsive leadership*" (Lilly); "*encouraging a challenging mentality...good digital leadership*" (Tendani). Secondly, respondents claim **buy-in into DT is key** "*influence to buy-into digital mindset and embrace change*" (Tamina); "*have the conviction first, that digital is the way to go*" (Lilly); "*buy-in into DT…is entrenched and immerses…in all things, e-Commerce…recruiting the best in class*" (Sassy). Thirdly, respondents believe that the **character of the leader is a key area of leadership. Firstly, strong character** "*strong will*" (Sassy); "*need quite strong, strong personalities, strong leadership…someone who's able to inspire*" (Tamina); "*very strong leadership driving this agenda that's visible to the workforce*" (Jamela); then **resilience** "*courageous leadership…doing what you say you can do…resilience*" (Messi); "*must be resilient…tenacious*" (Davido). Fourthly, findings indicate that **leadership skills are another key area of DT**. Firstly, **transparency** "*transparency*" (Lilly); "transparency" (Tamina); "*clear communication*" (Messi); **influence** "*influential and able to inspire others with gravitas…charisma…ability to navigate challenges of established traditional retailer*" (Tamina); "*influence*" (Patrick); **innovative** "*innovative, experimental mindset*" (Tamina); **adaptable** "*adaptability*" (Lilly); "*adaptability…the ability to…to learn, unlearn and relearn*" (Patrick); "*continual learning, growth mindset, not afraid to fail, agility, managing digital identity and digital mindset…learning quickly failing fast*" (Tendani). Lastly, findings indicate respondents believe that **leadership experience is key area of leadership** "*you need a leader with experience…who has retail experience and understands how digital works*…a leader *with theoretical understanding of digital retail cannot succeed*" (Tamina); "*the acceleration that we get with a leader that is 100% bought into DT, 100% driving DT, 100% familiar with where we need to go, what the steps are, where the risks are, where we're going to bump our heads, because it's not necessarily the first time you seeing the movie is what's going to probably set us up for success*" (Jamela); "*thought leadership"* (Sassy); *"thought leadership… skilled and effective leadership*" (Messi).

5.5.3 *Role of leadership in DT*

Respondents indicate that the key areas identified manifest in DT through articulation of vision, taking people along with you, pacing the change, creating a conducive culture, leading from the front, influence, navigating complex processes and transformational leadership.

- ***Articulation of Vision***

Findings indicate that respondents believe that **clear articulation of their vision by leaders is essential** "*be a visionary…articulating timelines relative to a target, and then to report progress against these targets*" (Sassy); "*it takes a certain level of…clarity, of seeing into the future…very clear roadmap… clear communication…a change management and communications plan is critical to make sure that people understand*" (Messi); "*getting people to understand what the kind of Northstar is…"* (Tamina); "*needs to be articulate, they need to be able to do to almost clearly describe, paint that picture*" (Davido); "*a lot of communication needs to happen throughout the transformation*" (Lilly).

- ***Buy-into Vision***

Respondents believe that **leaders need to get people to buy-into the vision** *"for traditional retail you've got to now be transparent so that people can also understand the journey…"leadership creating a platform for people to understand and buy-in the journey, and also bringing people on the journey*" (Jamela); "*take the people with you on the journey…get buy-in*" (Lilly); "*to be truly successful, it's about how do you bring everyone on board…influence to buy-into digital mindset and embrace change*" (Tamina); *"the risk there is that you don't get support from the people who need to execute along with you"* (Sassy).

The **character of leader is important in implementation to influence people** "*a very strong will… do what you said you're going to do*" (Sassy); "*doing what you say you can do… an influential person…lot of resilience…having the courage to stick to it despite all the odds*" (Messi); "*understanding how people are change averse…to have that don't give up can do attitude…be tenacious*" (Davido); *"how do you influence the rest of the business to buy into this digital mindset…need someone who has that level of influence"* (Tamina).

- ***Pacing the Change***

In addition, **leadership must pace the organization through the change** "*The leadership needs to have these stage gates…to pace the organization…Because if you implement too much change, too quickly, you can overwhelm the place…very important to understand which pieces need to move first, where you need to spend the money first"* (Messi); "*you cannot transform everything even if you can…It's a function of the reality of that particular organization…*" (Thomas); "*not everything needs to change immediately, it is a journey*" (Davido). Furthermore, findings indicate that respondents believe that **leadership skills and experience will help navigate the complex process of DT** "*the ability to…to learn, unlearn and relearn…adaptability is critical*" (Patrick); "*continual learning, a growth mindset*" (Tendani); "*thought leadership from vision*" (Sassy); "*leaders must be able to impart the necessary thought leadership…copy from the best cause they've done it…understand who's made failures…learn from them…if you don't have skilled and effective leadership who understand what these benefits are to the business, who have maybe hands on had physical experience of this in other areas, I think you will be challenged to pull this off successfully*" (Messi).

- ***Creating Conducive Culture***

When **leadership gives direction they must create a culture that support the vision** "*a culture to support everything…create a culture of intrapreneurship…culture of agility… to create the right culture…you're upskilling, your reskilling…to make sure that everyone is given a chance to participate in the new environment*" (Lilly); "*psychological safety and embracing failure…encouraging a challenging mentality not always agreeing*" (Tendani); "*it's about how does everybody in this organization have a role to play…*" (Tamina); **a culture of failing forward and agility** "*being experimental… fail fast, also the agility"* (Tamina); "*I think the ability to change how we develop, from a tech perspective and from developing processes or systems, or strategy…move to we've got the right answer…we will try new things, we will learn and adjust and tweak…to test and learn*" (Patrick); "*not being afraid to fail…learning quickly failing fast*" (Tendani); "*leadership needs to be moving with speed*" (Jamela); "*be responsive to a fast changing environment*" (Lilly); "*digitization of this world is happening at such a rapid rate*" (Sassy); and **a culture of embracing change** "*plan knowing your plan is going to need to change your plan as you go along*" (Tamina); "*that ability to always expect the unexpected, and to embrace that unexpected, and the change that comes with*" (Tendani); "*reserving the right to change your mind…to change things as I learn and understand better*" (Patrick).

- ***Leading from the Front***

Findings indicate that respondents believe **leadership style plays a role by leading from the front** *"for traditional retailers…have the conviction first, that digital is the way to go and have the systems to support that…understanding of opportunities and threats that digital poses…break those boundaries…role modelling…how is leadership carrying themselves*" (Lilly); **"***be a role model…obviously entrenched and immerses himself in all things e-Commerce*" (Sassy); *"leading from the front*" (Jamela).

- ***Transformational leadership***

Respondents believe that implementation of DT requires **transformational leadership.** Thomas describes **leadership at three layers** "*first layer…at the Exco level…people want to see alignment and consistency…second layer…functional layer where the people who have to be accountable for work are…they are important they are powerful…make sure they buy-in…the third layer is the layer of leadership where work gets done…those guys are scared of their jobs…their future…so change gets resisted…they look to the middle layer and acts accordingly*". "*having a cohesive, single-minded leadership view where the senior management team believe in the same thing, see the same insight, and clearly understand how they're going to get there…without which it's a waste of money and chaos…*" (Messi); "*a leader that transforms has a level of madness…has to be a little bit crazy, a little arrogant even and not afraid to stand alone…I've witnessed the leader of e-Commerce standing alone…I think in such a difficult time, where our organization is, he's really demonstrated the difference between the old type of leadership and new leadership required to do the things that need to be done*" (Sassy).

5.6 DT Strategy

In order to understand DT Strategy the following questions; (q1) *Please explain whether you believe an effective strategy plays a role in DT?*; (q2) *What key elements of an effective DT Strategy do you consider important for DT?*; (q3) *How do these elements play a role in the implementation of DT*?; (q4) *Is the DT Strategy aligned to the overall business strategy?*; (q5)) *Is there anything you would like to add regarding the role of DT Strategy in DT?* were asked.

5.6.1 *Role of strategy in DT*

Findings indicate that respondents believe that a **Strategy is essential for DT** "*effective strategy…yeah*" (Davido); "*yes it does*" (Jamela); "*100% Strategy plays a role in DT*" (Tamina, Thomas); "*absolutely…you have to have a strategy*" (Messi); "*Definitely, without a strategy I don't think anything works*" (Patrick); *"yes, strategy plays a role*" (Brigadia); "*an effective strategy is crucial*" (Tendani); "*an effective strategy does play a role in DT*" (Lilly); "*whatever you do in your organization should be your digital business transformation strategy"* (Sassy). A DT Strategy not only **guides an organization in their DT efforts** "*understand what the company's overall ambition is…what role that DT play in that*" (Davido); *"so that you know in the direction that you're going in*" (Jamela); "*the strategy, in simplest terms defines where you want to get to*" (Tamina); "*strategy is definitely required to give context to where the business wants to end up…that Northstar, that vision*" (Patrick); "*strategy tells you what you need to do and how you need to do it."* (Messi); but also **tells organizations what no to do** "*what's important is what's not in the strategy, because it also says what you're not doing"* (Messi).

In addition, findings indicate that some respondents believe that **DT Strategy is not simply about technology** "*when we think about DT strategy, the mind immediately goes to technology…it's not that, it's about the capabilities…need a focus on how to simplify, improve, speed up outcomes for our customers…that should be the strategy of the organization*" (Brigadia); but about **change** "*transformation strategy is all about change…you don't go through phases of change, it's a continuous cycle around*" (Tendani). In fact, DT Strategy is one of the main reasons **why DTs fail** "*why transformations fail…strategy*" (Thomas); "*not having a strategy, not reviewing that strategy and adapting it on a continual basis, is actually where I think it often falls flat*" (Tendani); "*without a strategy I don't think anything works…doesn't matter what you're doing, whether it's DT, or anything else*" (Patrick).

According to respondents, a **DT strategy has many parts** "*very important to understand which pieces need to move first…multiple moving parts there's a lot of costs involved*" (Messi); *"there are so many moving parts…have to understand what are all the aspects…understanding what digital business transformation is…the core domains…building out your strategy around each one of those" (Tendani)*; "*it has to encompass different aspects and it has to include DT at its core*" (Davido); is **driven by inward and outward scans** *"strategy will be informed*

by both inward and outward scans[5] *the outward involves a maturity assessment after which you understanding the gaps, all of these things are informing what is in your strategy…strategy is closing the gap…on the things that...will deliver the most ROI (Return on Investment)"* (Lilly); is **dependent on context** "*it's just about the adoption and relevance it has in the context and time of your organization*" (Sassy); "*reality of that particular organization*" (Thomas); and **must be long term** "*it ought to be a long-term strategy…in retail, particularly, the strategy also requires almost speed*" (Davido); "*you do need a long-term strategy*" (Jamela); *"be committed to the journey since it is a long-term journey"* (Thomas); to be successful.

5.6.2 *Key elements of an effective DT strategy*

Findings indicate that respondents believe the key elements of an effective DT strategy are understanding of your business and vision; understanding the ecosystem; communication, commitment and culture.

- ***Understanding your Business and Vision***

Firstly, a general **understanding of the business** (the what, why and how) "*I don't know if the elements of a digital strategy is any different from an elements of any other strategy…understanding what it will take to get there…and then then how do you get there*" (Tamina); "*crystal clarity around why you want to transform, what you want to transform…and being able to understand that*" (Messi); "*understanding your business…objectives…those core elements of your actual business…the impact of DT on your business…because that's your vision…and you'll understand what else needs to change*" (Davido); "*understanding what digital business transformation is…asking what does a digital organization create…what would happen to our business if we didn't have a digital business transformation strategy?*" (Tendani); "*understanding what is going to deliver financial results*" (Jamela); "*the first part…(understand) who do I serve?*" (Brigadia); and **vision "***vision*" (Patrick); "*informed by the vision*" (Lilly); "*first and foremost, what is the aspiration what is the vision?*" (Tamina); "*to start off with crystal clarity around why you want to transform, what you want to transform"* (Thomas); "*in strategy has got to be clear the mission of why…what you want to do and why you want to do these things*" (Messi); "*what is the outcomes that you're looking for?*" (Tendani); "*if you don't know what you have to achieve, you don't know how you're going to achieve it*" (Jamela), is required.

- ***Understanding the Ecosystem***

In addition, respondents report that **understanding the ecosystem** is essential "g*ap Analysis is…the foundation of the strategy*" (Lilly); "*the SWOT analysis*" (Messi); "*assessing the five domains…your customers…competition…data…innovation and value*" (Tendani). This requires a compelling **business case** "*then to justify a business case…a compelling business case*" (Messi); "*justify a business case*" (Thomas); sufficient **resources** "*then what are the resources that you need to be able to get there?*" (Tamina); "*resourcing the plan is*

[5] Environment scanning is the acquiring and using of information about events, trends and relationships in the external environment helping management with the future direction of an organisation (Voros, 2003).

very important" (Messi); "*people*" (Lilly); "*people structure… to support where we are going*" (Jamela); "*the structure (people) that will support that* "*the technology capabilities*" (Brigadia); "*then you need the ability to execute*" (Brigadia); "*you can have all the other things but if you don't have that capability to implement…then you also stuck*" (Davido); a **plan (roadmap)** "*plan to support where we are going…people plan, a financial plan… needs to be an annual strategic plan with the deliverables, so there is each functional area needs to know how they play a role in the larger strategy*" (Jamela); "*a timeline…if you don't have the detailed plan, and you don't execute against it, and also is meaningless*" (Tamina); "*with a solid roadmap of how you're going to eventually execute upon that is absolutely important…you got to phase the strategy around what comes first*" (Messi); "i*t's critical, because that informs almost everything else throughout the planning process…a roadmap must then also inform investments*" (Patrick); **metrics for success** "*define a success metrics against it to measure progress*" (Tamina) and **budget** "*ensuring you have a budget to deliver the strategy*" (Messi); "*a strategy requires buy-in and budget*" (Lilly); "*put our money where our mouth is DT*" (Thomas).

- ***Communication, Commitment and Culture***

Once all the above elements are in place, respondents believe that the strategy **needs to be communicated** "*communication of that strategy*" (Jamela); "*articulate that*" (Messi, Thomas) "*communicating it with conviction, making sure that people understand…how does it help them to deliver on their KPIs better…it needs to speak to measurable things…it's just an element of an overall corporate (strategy) speaks to their business…then they can…filter down that conviction to their whole team, and then the strategy becomes more effective*" (Lilly). The organization needs to be **committed** "*you've got to be committed to the journey…you must be in it for the long haul and cannot be short minded about it*" (Thomas); and needs a **culture that embraces change** "*the culture…the values that are required*" (Patrick); "*you start building a culture*" (Messi). Lastly, respondents indicate that once an organization has developed a DT Strategy it must be followed with **implementation** "*implementation now is speaking on tracking and monitoring…identify…key metric that…this transformation initiative is supposed to solve*" (Lilly); "*you need continuity from the time you craft the plan to the implementation, and then you test it and continuously monitor it*" (Davido).

5.6.3 *How key elements play a role in the implementation of DT*

Respondents indicate that the key areas identified manifest in DT through understanding what is needed to implement DT, understand gaps, determine where the organization wants to get to, get buy-in and creating a conducive environment.

- ***Understanding Implementation***

Findings indicate that understanding your business **helps organizations know what is needed to implement DT** "*…if you don't know your business, and you don't know the impact that digital will bring, then you're not going to be able to implement any transformation correctly…*" (Davido); *"you got to know in terms of your ecosystem,*

the world in which you operate, that will influence the elements that are included in your digital strategy" (Sassy); "*the first part, which is, who do I serve?? if I improve the life of the person I serve, I'm going to make the relationship with me compelling…that is simplify, improve, speed up*" (Brigadia); "*it's not about your product anymore, it's actually about the platform that that you enable for your customer…understand you're not using data to just manage your process, but it becomes a strategic asset to make decisions….real innovation is extra ,how do I constantly adapt, rather than just sustain the business is really important*" (Tendani); and **determine where the organization wants to get to** "*crystal clarity on the purpose…why you want to transform*" (Thomas); "*find…how are we going to win…bring everything together… that's why the exploration of vision is so important*" (Tamina); "*defines their vision…how you're going to get the clarity of purpose*" (Patrick); "*in strategy has got to be clear the mission of why*" (Messi).

- ***Understanding Gaps***

In addition, findings indicate that understanding your ecosystem helps organizations to **understand gaps** "*the SWOT analysis…understands where you are and what you want to do and why you want to do these things…what's the why, what's this business case…and if you don't make that compelling…won't buy into it*" (Messi); "*Gap Analysis is the foundation of the strategy informed by the vision…then…organizational elements, like people, processes…understanding the gaps, which are informing what is in your strategy…closing the gap*" (Lilly); **build a business case to ensure DT Strategy is feasible** "thereafter they can easily "*justify a business case because you now understand how it fits into a bigger agenda…*" (Thomas); "*then to justify a business case…a compelling business case*…that people can buy into" (Messi) not only feasible but sustainable "*sustainability of a business model is to be profitable else you won't be able to continue sustaining the digital business, you won't be able to transform…*" (Jamela); **allocate resources to enable implementation** "*resourcing the plan is very important…your top leadership is almost hand-picked to deliver against this plan…structuring as well, you structure the organization to be successful in its endeavour*...*we've grown an e-Commerce team from 34 people to almost 300 people in one year*" (Messi); "*it must include people…then came a structure*" (Jamela); "*DT Strategy defines what changes need to happen in the organization, through to what structure would help execute the strategy to bring it to life*" (Patrick); *"you need the technology capabilities, which is the digital architecture…and then you need the ability to execute*" (Brigadia). Futhermore, it helps organizations to **develop roadmap to guide efforts and investments** "*translate (strategy) into a…implementation plan with clear milestones*" (Tamina); "*you got to understand the timeline that's realistic for what you expect for each of those phases…then you…phase the strategy around what comes first… it's going to be a multi-year journey*" (Thomas); "*DT Strategy also informs the roadmap…roadmap will start breaking down the detail relative to your one, year two, year three…roadmap helps to inform investment*" (Patrick); "*having a very clear strategy, with a solid roadmap of how you're going to eventually execute upon that is absolutely important…very important to understand which pieces need to move first, where you need to spend the money first.*." (Messi); "*there needs to be an annual strategic plan with the deliverables, so there is each functional area needs to know how they play a role in the larger strategy*"

(Jamela); "*You can have the greatest strategy in the world but then if you don't have the detailed plan, and you don't execute against it, and also is meaningless*" (Tamina); determine metrics to **help with accountability and measuring progress** "*your metrics linked to those milestones…and actually holding yourself to account to…early warning flags of we're not going to hit a milestone*". (Tamina);"*and you've got to have very high expectations, accountability around that*" (Thomas); Metrics "*helps you understand what is going on in your business and people are excited about them, because there's been measurable undeniable results*" (Lilly); and **allocate budget to fund the DT Strategy** "*you would need the budget to make sure that strategy can be delivered upon…this company is now going to spend…40% of its Capex into e-Commerce…it's like put your money where your mouth is*" (Messi); "*a strategy requires budget*" (Lilly); "*from that came a budget"* (Jamela).

- ***Obtaining Buy-In and Creating a Conducive Environment***

Findings indicate that to implement DT **communication is required to obtain buy-in** "*if you do not communicate, you will not have a DT*" (Jamela); Thomas alludes that after developing the strategy it is followed by communication "*articulate that*" (Thomas); "*without which any implementation you do may not work cause there is no alignment*" (Tamina); "*a strategy requires buy-in…communicating it with conviction, making sure that people understand…how does it help them to deliver on their KPIs better*" (Lilly).

Furthermore, findings indicate that respondents believe that to implement DT you need **culture to create a conducive environment for DT implementation** "*you start building a culture eats strategy for breakfast…one of the components of good execution against a good strategy is having a good culture*" (Messi); "*DT Strategy defines what changes need to happen in the organization starting from culture, or values*" (Patrick) to support **the long-term journey** *"be committed…since it is a long-term journey"* (Thomas).

5.6.4 *DT Strategy to Overall Business Strategy Alignment*

Findings indicate that respondents believe that the **DT strategy is generally aligned to the overall business strategy** "*ultimately needs to be totally interwoven into the overall strategy…*" (Tendani); "*Yes…overall business strategy…is getting to become a number one in e-Commerce and we can only do that with DT*" (Davido); "*it is aligned to a great extent…the e-Commerce team is receiving support from the organization*" (Lilly); "*I believe so…leadership being so bold"* (Jamela); "*it is an integral part of the core organizational strategy…it's part of the five year 10 year strategy*" (Thomas); "*absolutely…our organization has publicly said that…e-Commerce is the engine for growth*" (Messi); "*Yes…the last year especially, there's been a huge amount of work done in making sure we have a cohesive strategy…the business went from federated businesses each with their e-Commerce to decoupling e-Commerce to accelerate the e-Commerce strategy however strategies remained separate for the business and e-Commerce but now we have a group strategy with digital playing a critical role in that…which speaks of customer journey and experience that is digitally connected and Omni-enabled*" (Tamina); however, some respondents believe that **there are some gaps** "*yes…but what we need is to be more clear on how our DT strategy is intertwined with the other strategies of the business…whether it's innovation, e-Commerce…e-*

Commerce is almost separate DT from some of the other activities, it would be a really good thing for the business to quite clearly articulate, how it (DT Strategy) is showing up today" (Patrick); "*a few gaps in terms of how it is rolled out…there is still that us and them but more of understanding the integration…there is clarity required*" (Lilly); "*majority of people when they think about digital, they think about e-Commerce and it's not, e-Commerce is a sales channel*" (Brigadia).

On the contrary, while some respondents believe that the **DT Strategy is not aligned to the overall business strategy** "*it is not aligned*" (Sassy); nor **clearly articulated** "*not sure that is articulated at all at a strategic level*" (Brigadia); and **the organization sees themselves as a traditional brick-and-mortar retailer** "*definitely still see ourselves as a physical retail business"* (Patrick); however, others believe that there is **opportunity for digital to not only be aligned to overall business strategy but to drive the business strategy** "*the goal is that whatever you do in your organization should be your digital business transformation strategy…they're not separate…should be in alignment*" (Tendani); "*IT strategy…it's not just a subsection…is essentially driving all operations*" (Sassy).

5.7 Technology as an enabler for DT

In order to understand Technology as an enabler for DT the following questions; (q1) *Please explain whether you believe DT is about Technology or organizational transformation;* (q2) *what digital technologies does your organization have and what are they used for?*; (q3) *Which parts of your organization would need to transform? please explain;* (q4) *Is there anything you would like to add regarding the role of Technology in DT?* were asked.

5.7.1 *Technology or Organizational Transformation?*

Findings indicate that most respondents believe DT is **an organizational transformation enabled by technology** "*organizational transformation enabled by technology*" (Sassy); "*technology is an enabler of the transformation…needs to happen at an organizational level…what technology do we need to have in place to enable that organizational vision*" (Lilly); "*DT inclusive of organizational transformation…from a people side… technology is also a very key part of the puzzle"* (Jamela); "*technology is a potential component…DT is defined by…it's organizational transformation*" (Thomas); "*don't think it's technology…technology is needed for DT…DT is so much more"* (Tamina); "*technology is without a doubt an enabler to make these things happen*" (Patrick); "*it's more about organizational transformation…digital part is the enabling piece…about transforming an organization…technology is really, really important, but it's still secondary*" (Messi); "*technology is part of it, but it's one part of it*" (Brigadia); "*the role that technology plays…and enables…digital business transformation…wide organizational change…is so important because it is people, systems, process enabled and empowered…transformed by new digital technology capabilities*" (Tendani); however, one respondent believes it is both technology and organizational transformation *"you can't have DT without technology and you can't have transformation without the people…people are a key component…technology and the transformation works hand in hand"* (Davido).

Consequently, respondents report that **DT is impossible without the right technology** "*without technology, you won't get to DT…you won't get associates digitally transformed, if they don't have the tools to do their work*" (Jamela); "*you can't do it without technology*" (Tamina); "*you achieve most of these things through technology, there's no doubt in my mind.*" (Brigadia); "*you cannot do it without it"* (Tendani). However, they caution that **merely implementing technology is not DT** "*Technology is a potential component of DT, but it's not what DT is defined by*" (Tamina); "*you can't just decide to implement software…and think that all of a sudden, you now digitally transform*" (Messi); "*if you take a complex process for the customer and you merely translate into a technological outcome, that's not DT*" (Brigadia); *"technology is an enabler it is not DT in itself*" (Tendani).

Furthermore, respondents indicate that while **technology enables and determines the pace of transformation**, **processes** "*other things like policies, governance*" (Lilly); "*not forgoing governance*" (Patrick); **customers** "*technology plays a huge role from the associate to the customer…you digitally transferring your customer from typical bricks to how they're shopping (digitally)*" (Jamela); **people, culture and change management** "*people and culture transformation…it's ways of working. People have entrenched ways of working and culture structured and introducing technology and processes to transforms this… a big part of it is culture and in people change management*" (Thomas); "*the people aspect is key…make sure that people are taken in the journey with them…DT is not about technology it's about the people*" (Lilly); "*can't have transformation without a shift the mindsets of everyone*" (Patrick); "*you almost elevate the level of working in the business…you make sure that technology picks up all the basic stuff…you've got to get people excited…to go through the pains of transformation*" (Messi); "*digital business transformation is people, technology and process*" (Tendani); **single mindedness** "*it takes a whole bunch of leadership and it takes common goals, common values*" (Messi); and **strategy** "*can't have transformation without a shift in the business strategy*" (Patrick); "*the strategy is important because if you don't know what your strategy is, you don't know what technology you need in order to deliver the strategy*" (Tamina); *"you can't just decide to implement software…it starts with this whole strategic view of where would you like to be"* (Messi); are also essential.

5.7.2 *Organization's Current Digital Technologies*

Current tools in the organization include: GIF, Fareye, Hybris, PowerBI Reporting Platform, followed by ERP systems for transactional requirements in back-end technology, the Composable Platform for re-usable decoupled services, Robotics Process Automation, Optical Character Recognition (OCR), Forecasting & Replenishment (F&R), Electronic Shelf Labels and also Zoom for enabling digital way of working.

- ***Global Integrated Fulfilment (GIF)***

Findings indicate that the digital technologies currently deployed at the organization include technologies to automate manual and error prone **picking and packing** processes such as the **Global Integrated Fulfilment (GIF) to improve efficiencies, productivity and competitiveness** "*to pick goods and pack goods based on*

information received through a mobile device or technology platform from a customer…facilitates a smoother process within the e-Commerce journey" (Davido); "*a picking tool or GIF to optimize…the associates life in store…critical to fulfillment*" (Jamela); *"GIF…help deliver our digital experience*" (Tamina); "*GIF…transformed the way work is done in stores…can actually move through a store in a more structured way…more efficient, more productive…also you have pictures that can tell you where things are*" (Thomas); "*designed to transform the fulfillment space…with GIF…it's designed to…put a device in someone's hand…the pick and pack stage is transformed by improving productivity by as much as 100%*" (Messi); "*e-Commerce technology GIF, picking packing technology*" (Patrick).

- ***Fareye***

Furthermore, findings indicate that Fareye **orchestrates the platform for the delivery of the orders to customers** "*tracking parcel from stores to customers provides the ability to track parcels…*" (Davido); "*Fareye, to optimize the fleet and the fleet movement…*" (Jamela); "*Fareye…to help deliver our digital experience…*" (Tamina); "*…the courier partners integrate into that technology…now have full visibility, end to end until the package gets to the customer…transforms the way your Call-centre runs because that technology can be available to the call centre…to the store…to the courier… it gives visibility to all stakeholders with the same data takes away friction and stress in the process*" (Thomas); "*acts as a final mile aggregating platform that orchestrates…final mile decisions and decide, based on the routing, which companies (courier) should get the order based on the size of the order…based on service delivery…facilitate routing through traffic using Google Maps…provide visibility into WISMO which is where is my order…orchestrate who should be getting what deliveries at the right price"* (Messi).

- ***Hybris and Power BI***

Respondents also mention that **Hybris** is **the front-end engine for customers** "*that is our actual content management system for all our online businesses*" (Messi); *"…actual e-Commerce engines on the front end…what sales customers or customers see and feel when they start engaging with us online*." (Patrick). In addition, findings indicate that **PowerBI** is used for **managing data** "*big data to extract consumer data, product data, marketing data stored in-house on in the cloud…to explore how can the rest of the other technologies enable us to tap into a broader consumer base?"* (Lilly); "*reporting tools like Power BI…Google Data Platform…whether it's store data, e-Commerce data, all our data into one cloud platform so we can start treating our customer as an overall"* (Jamela).

- ***Other Digital Tools***

Furthermore, findings indicate other digital technologies, **Electronic Shelf Labelling** "*already got things like electronic shelf labels…in many of the stores…*" (Patrick); *"F&R…automated replenishment…space planning tool, but it's so rudimentary*" (Sassy); the **Composable Platform** *"the Composable Platform…that separates itself from*

the monolithic architecture of the organization and allows you to write discrete pieces of functionality that could be reused. We also have ***Robotic Process Automation*** *that runs on a platform on which we are able to build that, so it's an automation platform. We use* ***AI*** *in certain areas of our business…for example, part of that is OCR."* (Brigadia); "*understanding workflows, and the selling process is a big focus…digital Composable Platforms, where you can build once and reuse many times…even if you don't have deep technical knowledge…being able to integrate between the different technologies like the e-Commerce technologies, the core technologies, that's always been also been a big focus…integration layer*" (Tendani); and **Zoom** "*fully digital transformed way of doing meetings, which is Zoom, work from me anywhere, anytime*" (Jamela).

In the future Lilly reports that there are **opportunities to leverage other technologies, including Artificial Intelligence** "*there's still a lot of tech that we're not tapping into…on the call centres and the conversational AI …technologies to scan your products to track your products"* (Lilly).

5.7.3 *Transformation Areas*

Findings indicate that respondents believe the common areas requiring transformation are operations; customer service; cross-functions; decision making; technology and general areas.

- ***Operations***

Findings indicate that the **store**, also referred to as Operations, **requires transformation** "*more in the stores…store managers…hire lots of people because they are not implementing the technology properly…around change management and driving the adoption of these new technologies, training people…but train people well, pay them well, and treat them well…to adopt the technology and to stick to the processes that govern those things*" (Davido); "*DT down to the lowest level and the entry level people in the store…that education is a massive gap*" (Jamela). Furthermore, some respondents feel that **it is important for sales people in the store to be aware of DT** *"at least 30% of customers (in store) are browsing online first…in future that will probably be 50 60…these customers will eventually transform…to purchase online*" (Jamela); "*our store associates…are running around…stock is not on the shelf, and people are kind of making gut feelings…arm associates with mobile devices in the store…then work becomes more efficient…it takes away all the current friction in stores*" (Thomas).

- ***Customer Service***

Findings indicate that **customer service areas** also require transformation "*we're very manual,..have to elevate and position that department properly...with the right level of the right caliber of individuals and then put the right technology stack to enable them to make decisions*" (Messi); "*transforms the way your Call-centre runs because that technology can be available to the call centre…gives visibility…takes away friction and stress in the process*" (Thomas).

- ***Cross-Functions***

Findings indicate respondent believe that **cross-functional ways of working should be transformed** "*The banner[6], more integration in the rest of the business…to work better with the cross-functioning teams in banners…transforming the way they do their work…the mindset, the consideration for impact of what they do on e-Commerce*" (Jamela); adding **integration of all business** "*integrate all our different banners and our different services going forward…the banner and e-Commerce…creating an enterprise way of implementing DT and managing the customer journey*" (Tamina).

- ***Decision Making***

Findings indicate that the organization **should become data led by using data for decision making** "*you're not using data to just manage your process, it becomes a strategic asset to make decisions*" (Tendani); "*access to data…without having near real time data flowing into everybody in the store and call centres, and all the necessary decision making to keep a level of focus…you need granular well-structured data people can understand…it's actionable business intelligence. And by pushing more of this data down into stores and training and transforming people to make data led decisions, you grow automatically…*" (Messi); "*visibility to all stakeholders with the same data takes away friction and stress in the process*" (Thomas); "*the fact that we don't even pull the same reports across this business, it's also perplexing*" (Sassy); "*whether it's store data, e-Commerce data, all our data into one cloud platform so we can start treating our customer as an overall"* (Jamela).

- ***Technology***

In addition, findings indicate that respondents believe **Technology and related infrastructure requires transformation for delivery** "*improvement of infrastructure for delivery part of the picking and packing…make that system more efficient, user friendly and enjoyable for the consumer…other players have substitution capability*" (Lilly); **Fulfilment** "*the technology stack as some of the work underway in the Fulfillment space*" (Messi); **Front-end technology** *"Hybris front end, still opportunities in terms to alignment with a digital way of working to get agility that the business requires*" (Messi); **ERPs** "*one of the critical parts here is an ERP technology…your point of sale (POS), your centralized systems from an ERP perspective, our organization sits with multiple versions of these across each business units, which makes hugely complex"* (Brigadia); **decoupled services** "*very decoupled service based e-Commerce environment*" (Patrick); *"the more you can decouple them and the more you can introduce micro-services, the more agile you become"* (Messi). Furthermore, one respondent believes the **role of a technology team should transform** "*to be the thought leader…to play a leadership role, not just in technology but understanding the business process, the customer experience required and then to get the feedback to rapidly improve and adapt to the needs of the associates and customers*" (Tendani).

[6] Banner refers to the business, the traditional brick and mortar part of the organization, includes Stores/Operations

- ***General Business Areas***

In addition to the areas singled out above, findings indicate there is opportunities to **transform all areas of the business** "*all elements are going to be subjected to this, I can't think of a single area of the organization that would be unaffected*." (Brigadia); "*there's opportunity across the board*" (Tamina); "*all of it…every touchpoint needs to be transformed*" (Sassy); "*across the line*" (Tendani); **Finance** "Finance" (Sassy); "*support functions like Finance…we're still doing things like four or five, six ways because of different ERP there's no digital enablement…*" (Tamina); **Human Resources (HR)** "*HR, huge opportunity…how we enable our associates much better whether it's home office associates or store associates*" (Tamina); "*HR…Today we have so many systems that are disjointed…the ideal scenario would be to have a single sign on to connect into all the systems…That would be transformational, simplify experience for associates*" (Thomas); "*because the employee experience ultimately impacts the customer experience*" (Tendani)…"*HR performance process*" (Sassy); and **Customer Service touchpoints** "*Do you deal with the customer, employee or the vendor? If so, then DT is advised for you*" (Brigadia).

5.8 Digital Workplace Skills

In order to understand digital workplace skills, the following questions were asked; (q1) *Please explain whether you believe digital workplace skills plays a role in DT*; (q2) *Does your workforce have the digital workplace skills required for DT?*; (q3) *How would you define the level of digital workplace skills in the organization?*; (q4) *Are the digital workplace skills sufficient for the DT journey? Please explain*; (q5) *What interventions are you taking to close the skills gap?*; (q6) *Is there anything you would like to add regarding the role of digital workplace skills in DT?* were asked.

5.8.1 *Role of Workplace Skills in DT*

Findings indicate that respondents believe that **digital workplace skills play an important role in DT** "*yes, workplace skills play a role*" (Jamela); "*yes, I do believe that workplace skills…play a big role*" (Lilly); *"100%, there is pressure for the workforce to become like more digital in our thinking*" (Tamina); "*there are basic capabilities that we need as employees in order to play a part in DT*" (Brigadia); "*people need to be trained for new world…your DT journey can't just stop with us implementing the transformation"* (Davido); "*absolutely…this problem becomes more and more profound"* (Messi); **"***of course…the deficit is not necessarily we are implementing the wrong tools*" (Sassy); "*the duty of everyone to think about how they can improve what we do, how we do it, leveraging technology…to help us either automate, or refine or create efficiencies in how we work*" (Patrick).

However, findings indicate that there are **macro-economic challenges** which impact **availability of digital skills** "*our country does e-Commerce being nascent…our population and the level of education…majority don't have the skills…means that there aren't a lot of skills out there*" (Davido); "*I think our challenge as a country…we don't have enough talent in the digital space…still lot of work to be done*" (Tamina); "*we've got a huge shortage*

…the demand for skills and resources who understand the digital world far outstrips the supply and just understanding" (Tendani).

Interestingly, few respondents believe there are ways **to mitigate the shortage** "*so if you've got the skills internally to train others so that you can repurpose those skills then you killing two birds with one stone…grow your own talent internally"; "create an environment where they can be knowledge sharing"* (Lilly); *"just understanding how you design good customer experience, how do you design digital interface to deliver good user experience, and the technologies and the skills that are that are available for you to learn"* (Tendani).

- ***Appropriate Workplace Skills***

To enable employees to gain the appropriate workplace skills, some respondents report that **training** and **evaluation of current skills are required** *"people need to be trained for new world*" (Davido); "*think about your current workplace…and the people in it…how can I repurpose*" (Lilly); *"it's about identifying the skill sets that you need…identify the gaps that you have, then is that bridge being able to be trained, and coached and developed, so you get people moving"* (Messi); "*as the expectations of our customer changes they are looking for associates to make things easy and seamless for them which requires them to be thinking digitally*" (Tamina). However, Messi highlights that as you build new structures to support DT, **ethical issues regarding workplace skills arise** "*got these ethical decisions…to retrench these people? Or do you take these people on a journey and repurpose them into other areas.*

- ***Mindset Shift***

Furthermore, respondents feel that a **mindset shift is needed** "*the bigger impact is actually the mindset*" (Tendani); "*become like more digital in our thinking not only technically but in the mindset applied to do the job*" (Tamina); "*a lot of DT is less about the technical sophistication of technology and it's more about mindsets and change and comfort level and acceptance…most of this stuff is basic enough to where people were of the right mind, they could learn it…*" (Thomas); "*…it's more the mindset and a willingness to learn, because digital skills themselves are ever changing… the learning mindset, the growth mindset is important*" (Tendani); where people **embrace change** "*change and comfort level and acceptance…most of this stuff is basic enough to where people accepted the change, they could learn it…resistance to transformation has just nothing to do with the technology or Digital, it's just people don't want to change…the biggest work…find ways to get people to embrace change…and choose to learn*" (Thomas); "*from a skills perspective, individuals' ability to adopt new technology, to introduce new technology is important as well*" (Patrick); "*the biggest skill that you actually need is adaptability*" (Tendani); "*skills that I would say are required in the very fast moving environment is adaptability, agility"* (Jamela).

- ***Ways of Working***

Furthermore, findings indicate that not only are workplace skills required, but also the company needs to **improve the ways of working** *"you've got IT people who implement…know how it all works but they can't*

explain because they don't understand what a buyer needs" (Sassy); "*what is important is understanding the business…the customer experience, making the required changes on tools…cross functional working*" (Tendani); "*need to work better with the cross-functioning teams in banners…"listening to the customer and actually adapting the way we operate"* (Jamela).

5.8.2 *Organization's Current Digital Workplace Skills*

Findings indicate that most respondents believe the organization's **workforce have the required digital workforce skills** "*I think we do*" (Davido); "*the workforce does have the skills…for the transformed environment*" (Lilly); "*everybody has what it takes to transform…they have the skill set*" (Messi); "*we all live in a digital world… everybody has a foundational skill*" (Tendani). However, other respondents believe these **skills are not organization wide** "*we have pockets*" (Tamina); "*for the majority, definitely not… store associates and what tools and technology they use today…is very rudimentary compared to…store associates use in some of the best stores in the group globally*" (Patrick); "*have these skills in pockets…in e-Commerce…Central Operations…in Finance…Technology…not widely known or used across the organization*" (Brigadia); "*store associates and what tools and technology they use today…is very rudimentary compared to…store associates use in some of the best stores in the group globally* (Patrick); "*got very few people who've got the skill…need more of those*" (Sassy); "*we have some of the digital talent in the country but they aren't global*" (Davido); "*don't necessarily think all of them have the ability…from a strategic perspective to see two to three years down the road…they still operational…in the approach*" (Messi). In contrast, one respondent believes "*No, the workforce does not have the digital workplace skills required*" (Sassy).

In contrast, some respondents believe that **digital workplace skills are not relevant for the DT journey** "*it's not the skills itself…So having some people who have examples of good skills or experiences who can share those is more important than the skills itself…comes back to how quickly can you drive the change, the willingness to learn to adapt, and to learn from own experiences, not just from a textbook, not just from a tool as an example*" (Tendani); *"some of it's also just a mindset shift…work to do, but not terrible*" (Tamina). In addition, one respondent believes **leadership must provide learning tools "***it comes back to the leadership…are we providing the most effective learning tools and learning environments*" (Tendani).

5.8.3 *Level of and Sufficiency of Organization's Digital Workplace Skills*

Findings indicate respondents believe **there is a variable levels of skills** in line with availability of digital workplace skills "*a sort of a medium, medium to high…we've got leaders from developed markets and they are trying to get us…quicker to where they are*" (Davido); "*Yes…maybe the upper end of low because you could argue that from a Head Office perspective you might have some good skills, but that's not good enough when it's a fraction of the total workforce*" (Patrick); "*I think in those pockets, we have average to good skills. But broadly across the organization, we have poor skills*" (Brigadia); "*it's just maturity. you're dealing with so many people, and people's level of ability to adapt and overcome is different…it's the step changes required, it takes time*"

(Messi); "*I think we're not there yet…but because of the healthy working environment, they can be a lot of progress in a very short term…So we will get to the better place in year or two…everybody has done their job already for 12 months…they can optimize a job, they'll be much better at it, do things faster, get more cut through*" (Jamela). One respondent believes **the skills are outdated** "*...you do have skilled people, but this skill is outdated, it's not relevant…then you have people who are very technically skilled, but don't have the patience because of being typical IT people…to be able to explain it to the end user*" (Sassy).

In contrast, some respondents believe that **the level of digital skills is not important** "*I don't think people are digitally illiterate. I think* ***a block of the DT is culture and mindset, and change embracement****, and very little to do with digital skills*" (Thomas); "*nobody's been exposed to this level of DT in SA, because it doesn't exist…****what is required is you've got to be resilient, use your initiative…be learning leaders*** *now*" (Jamela).

Findings indicate that the **sufficiency of digital workplace skills is variable in line with level of skills** "*it's just a matter of convincing people that they can do it…the skill is there, we just need to develop it*" (Davido); "*yes, they are (sufficient) but there's gaps in terms of awareness of digital environment*" (Lilly); "*we are not there yet but the ground has been set to do to do much better* (Jamela); "*I can't pinpoint…specific gaps…it's a level of maturity and understanding…clarity*" (Messi); Patrick alluded that "*the skills are there but not sufficient"; "you might have some good skills, but that's not good enough when it's a fraction of the total workforce"* (Patrick); however, some respondents **believe the available digital workplace skills are not sufficient for the DT journey** "*No, they are not sufficient*" (Sassy), "*Definitely not, digital workplace skills are not sufficient*" (Brigadia).

5.8.4 *Interventions*

Findings indicate that most respondents believe that the organization is implementing various interventions such as exposure, nurturing conducive culture, changing organization structures, embedding DT in organizational values, taking ownership, providing thought leadership; talent management and retention to close the digital workplace skills' gaps identified.

Firstly, respondents report current interventions include **exposure to digital** "*our leader exposes us to people that are at the top of the game, to people that have already walked this journey*" (Davido); "*exposure to the business with townhalls…expos, showing the art of the possible*" (Tendani).

Secondly, respondents report a **nurturing culture that embraces mistakes** *"in an environment where we can try new things, we can explore, so technically, we failing forward…the opportunity to make mistakes and learn from those mistakes…take risks…for people to put their hand up immediately and say, this is not working.* (Davido).

Thirdly, respondents report **changed organizational** structures "the appointment of a chief customer innovation" (Jamela, Tamina); "*the organization having a chief customer innovation…bringing up all the necessary parts to enable the DT at an Exco level…all of this customer affairs, change management, integrating digital side in primary business…ensuring that digital has a place in brick and mortar"* (Lilly).

Fourthly, respondents report **embedding DT in organizational values** "*so the fact that it's kind of embedded in our values, and our culture shows you what a priority this is, for the business*" (Tamina*); "it's there in a leadership expectation"* (Patrick).

Fifthly, respondents report taking **ownership** "*I think there's a definitely cognizance that not everything works the way it needs to work. And I think doing it the right way, is everyone taking ownership in their respective areas to do this, and I think that is happening. But it does come back to our ability to move fast*" (Patrick) as key.

Sixthly, respondents indicate **thought leadership** "*thought leadership from the tech organization have really created a lot of visibility around digital mindset, data driven decisions…in addition to that is drive more identity around personal digital identity…helping people realize and break down those barriers*" (Tendani).

Seventhly, respondents report **talent management and retention** "*digital workplaces skills are being prioritized from a talent and a talent retention perspective by HR…they have identified…strategic positions in certain areas like digital, data and analytics…to prioritize the roles, look after the incumbents, beyond remuneration to providing associate value proposition and working back challenges and giving them the right type of type of work"* (Tamina).

Lastly, respondents indicate **ways of working** "*we've got some ways of working and role clarity that we're going through*" (Messi).

Despite the interventions mentioned, some respondents feel that **no interventions are being taken** "*I don't think the organization is aware of it…we are too inward looking…we need to bring in expertise of people who are the best*" (Sassy); "*no, we don't or its not driven with any vigor*" (Brigadia). There is **opportunity to implement programs** "*DT is an organizational capability…it should be part of minimum standards of working expected from new recruits and for the existing workforce, we should have a program that rolls out digital thinking and digital execution skills*" (Brigadia); and make **technology simple** "*people think about DT in terms of skills is because most of the technologies in SA are too complicated…making DT to be hard technologically…must force the engineers to make it simple…then transformation will be enjoyable…associates will be happy but today is too hard*" (Thomas).

5.9 Workplace Culture

In order to understand workplace culture, the following questions; (q1) *Please explain whether you* believe workplace culture plays a role in DT; (q2) *How would you define the workplace culture in your organization?*; (q3) *Do you believe the workplace culture is conducive for DT?;* (q4) *What interventions are you taking to turnaround the workplace culture? please explain*; were asked.

5.9.1 *Role of Workplace Culture in DT*

Findings indicate that respondents believe overwhelmingly that workplace culture plays an important role in DT, further emphasizing that a healthy workplace culture that embraces change, alignment of structures for culture and leading by example are pivotal for DT.

- ***Embracing Change***

Finding indicate that respondents believe overwhelmingly that **that a healthy workplace culture that embraces change is pivotal for DT** "*culture eats strategy for breakfast. If your culture is to try new things, and to accept change, then you will be successful…if you go with a proposition that says…we are going to do this for the people and it's genuine and it's trust, which is also its culture*" (Davido); "*yes, it does…where there's a healthy culture…where you have happy people, they will influence the cross functional teams, will get the buy-in, will be digitally transforming seamlessly over time*" (Jamela); "*100% DT is in our culture and it's interesting…they link DT to embracing change…So we have to have a culture of digital, embracing change then digital will helps us thrive*" (Tamina); "*believe that workplace culture does play a role*" (Lilly); "*absolutely, you've got to have the right culture to drive…the strategy*" (Messi) "*Absolutely, culture in the organization is pivotal in terms of DT*" (Sassy); "*it does…you prepare your strategy, you prepare structure, but then you've got to go and prepare culture*" (Messi); culture is t*he biggest*" (Thomas) pillar for DT; "*workplace culture is probably one of the biggest components…you need psychological safety…You have to create a culture where challenging is acceptable, encouraged and actually expected. You have to create a place where there is no fear of failure…through failure you learn*" (Tendani).

Respondents believe that a **culture that does not embrace change** "*definitely, (but) how much do we talk about it?…I'm not sure that we do enough of it. It's there in a leadership expectation*" (Patrick); "i*t does…there isn't a culture of improvement…I think that it holds us back*" (Brigadia); *"culture is about how we do things…where it's lacking you won't get DT, doesn't matter what you try, because culture is a collective thing*" (Davido); "*It's not sustainable to have a poor culture*" (Jamela); a **pervasive old school culture** "*you've got who have been part of the building the foundation of this organization…have benefited from the level of autonomy they had…they are still stuck in the old way of doing things…it's all old white men…when you come as a young, black female and saying guys, we've got to change the way we think, change the way we work, change the tools we use...it's difficult to motivate for the different way of thinking and a way of doing thing"* (Sassy); "*we still have some old school thinking in this business and across…different…pockets of people who have always done it this way*" (Tamina); "*a*

culture of blame…like all the old type legacy type things, things you want to move away from " (Messi); "*everyone is fighting the same battle…dealing with legacy systems, legacy thinkers, legacy doers"*(Patrick) **a culture of compliance** "*we've got a culture that is very focused on compliance, a huge compliance architecture that has been created because rules were not followed…making it cumbersome to get anything done and stifling innovation…*" (Brigadia) **are not conducive for DT**.

- ***Alignment of Structures for Culture***

In addition, findings indicate that the organization needs to **design their structures for the culture they desire** "*there is a need to design the organization for the culture you want…if it's this highly collaborative, cohesive, resilient type workforce, then when you're designing…the strategy…and respective structures you design for this. For high levels of accountability install some kind of autonomy at different levels. Do you centralize things to go faster, fail fast? from a people's perspective…How do you empower people? How do you encourage people to fail fast and not become reckless and careless?*" (Messi); "*when you're dealing with a lot of change, when you're dealing with a lot of trying to explore new solutions, you need psychological safety…have to create a place where there is no fear of failure…Because through failure you learn…If you don't create that psychological safety, that aspiration to fail fast and quickly and celebrate your failures, you drive a paralysis, then no decisions are made, no progress is made"* (Tendani).

- ***Leading by Example***

Furthermore, findings indicate that culture **is in the everyday things, it is walking the talk** "*culture…is big, because people need to buy into it, people need to believe it. if you walk the talk or if people believe and know that there's integrity then…it works…*" (Davido); "*culture is DNA…it creeps out in every element of the organization…for example hot desking…it's designed to drive open door policies, remove hierarchy… the work is …ongoing, it is continuous…to embed elements of what you want to drive in the culture*" (Lilly). Respondents believe that **there is room for improvement and areas in the organization that can be mimicked** "*how much do we talk about it? How much do we make it a part of our requirements?...I'm not sure that we do enough of it. It's there in a leadership expectation, but it feels like it's dealt with only then when you're rating…as opposed to being part of what we talk about all the time…helps force people to question when they don't understand it, to have more meaningful conversations about it…like DE&I (Diversity Equity & Inclusion) is spoken about often enough…DT needs that same level of attention*" (Patrick).

5.9.2 *Organization's Current Workplace Culture*

Findings indicate that the organization is faced with two sides of the same coin, respondents believe **parts of the organization has a healthy culture** "*the online business is more open to this digital world…on one side we are good at adopting and changing*" (Davido); "*the online business is a new organization having so many new people come in, it's kind of easy to influence…moulding the culture to be digitally enabling…The culture is good*

but more could be done" (Lilly); "*we have overall a healthy culture…it's a very intentional way of keeping it that way…definitely comes from the top. It's the high performance, there will always be pockets of little bad apples but that needs to be dealt with but overall healthy culture resulting in people in the rest of the organization being attracted to join the online business*" (Jamela); "*from an online business perspective, I think we're off to a good start…you've got all these new starters, and the leader helps set the tone for the type of workplace that he'd like. And he's very vocal about it and he spends a fair amount of time on it…one banner, I feel are a little bit more progressive, and they're starting to maybe move in the right direction*" (Messi); *"we're clear on the values that the business expects…I think that it's an ethical place. I think there's integrity*" (Patrick).

On the contrary, other respondents believe **the rest of the organization has challenges** "*the other side we have issues with it. the people most impacted by the DT…the stores, the merchants they're very averse to digital changes*" (Davido); "*we haven't hit the stage where we have one culture yet relates back to our legacy around federated businesses…we have an aspiration of embracing change enabled by digital but we still have some old school thinking in this business*" (Tamina); "*I think the problem is that we are a very small team in a much larger company…people outside that have a culture of blame…like all the old type legacy type things, things you want to move away from. the one banner maybe has got a few other challenges but the other banner feels a little bit stuck in the past, living in some kind of legacy thing battling to break free of challenges*" (Messi); "*we don't have an organizational culture that is focused on innovation and customer outcomes are not strong enough"* (Brigadia); "*there's a lot of uncertainty due to centralization…naturally people look to leadership…there's a tendency to default to authority, rather than a tendency to participate, take ownership and challenge authority*" (Tendani); "*workplace culture is intense, we've got a really strained retail environment in general*" (Patrick); "*it is the most sexist, ageist, racist environment…the micro-aggressions can really kill a person's confidence…It's a difficult organization for females and black female*" (Sassy); **it does not have an aspirational culture** "*as a company we on the lower end of the scale in terms of that aspirational culture you'd love to have in a business*" (Messi); and **the highly unionized environment compounds the challenges** "*the unions and the relationships with the unions are toxic to the culture…that it takes an inordinate amount of time away from the business*" (Messi).

According to some respondents, disparities in culture creates opportunities *"there's work to be done to shift their thinking and it's a priority for this business*" (Tamina); "*we're in a good place because at least we've got clarity on the culture…at least we've got a foundation that we're working through right now…and we've got some work to do"* (Thomas); "*there's a lot of work that needs to go into the change management because I don't think people understand the benefits of this journey*" (Davido);

5.9.3 *Suitability of Organization's Current Workplace Culture for DT*

Findings indicate that some respondents believe that even though the current **workplace culture is conducive** "*yes, I think it is*" (Davido); "*I believe that is conducive*" (Lilly); "*I think it captures it in terms of the framework of the culture and what the culture is meant to do*" (Thomas), it is important to **continue with these**

efforts to prevent complacency "*but more efforts have to be pushed to make it sustainable…complacence and shortcuts…start to creep in if the work is not on-going"* (Lilly); as it is **very early in the DT process** "*we're just too early in the process...the culture hasn't been embedded and hasn't been embraced fully yet"* (Thomas).

However, other respondents believe that **the current workplace culture is not conducive for DT** "*No, the workplace culture is not conducive to DT*." (Brigadia); *"no…but it will be I think in the next three years*" (Sassy); "*not yet, the culture not yet conducive*" (Tamina); "*we still have challenges…the larger workplace, the greater organization*" (Jamela); *"e-Commerce is not an island…until such time everybody understands that customers shop wherever they choose to shop…we all have to band together to serve this customer…I don't know if everybody sees that as the goal…everybody has other agendas*" (Messi); "*if you don't encourage these behaviours…going to be stifling insights versus process adherence*" (Tendani).

5.9.4 *Interventions*

Findings indicate that respondents believe there are a number of interventions needed, these include communication; focus on culture; accountability; leadership changes; driving innovation and ways of working.

Firstly, finding indicate that **communication** is important to create a conducive DT culture "*communicate often…even if it's just information sharing, keep people in the loop…if people know what's happening, they feel comfortable…if people don't know what's happening, that's also when the gossip starts…it's frequent and consistent communication...creating the awareness for people*" (Davido); "*one thing that's important is clarity…there's a lot of communication and alignment to clear goals and outcomes…Once that is clear that you know, you're almost giving people permission to question and challenge when something's not clear, or when an action or behaviour or decision goes counter to that*" (Tendani).

Secondly, respondents also believe that the organization has a **focus on culture** "*we've started a culture initiative…HR team is incredibly focused on…what our values are…we trying to figure out how do we make sure that…our associates understand what's acceptable behavior, what's an unacceptable behavior?...So it's going to be a massive focus for the business for this year, it's a really strategic priority for us*" (Tamina); "*the big thing is obviously our culture change process that's underway…we're starting off with bringing visibility and attention to what the culture is. So you're seeing that manifested in visuals in the office, culture training programs in the stores, there's a whole playbook that's being deployed this year, to start to move it down*" (Thomas); "*culture should always be penned on what are we trying to deliver as a business…it's important that we all understand that and we will live in those those same values*" (Tamina).

Thirdly, respondents report that **accountability is important for culture** "*accountability for leaders and executives is also a big thing. So that people actually ignore the expectation, but also get penalized or rewarded accordingly*" (Thomas); "*if you're not living the culture and the behaviors that we espouse to, what are the*

repercussions from that" (Tamina); "*changing accountability and accountability expectations*" (Sassy) in order to drive the right behaviours.

Fourthly, respondents believe that **leadership changes** "*change in leadership, change in talent that we bring in, and putting the right people with the right understanding of where the business needs to go in in the process of transforming the business*" (Sassy); "*the new role chief customer and innovation office that is a key strategic position in the role of DT*" (Tamina); "*the structure of the organization at the highest level is positioning themselves for DT*" (Jamela) are important to drive the right culture in the organization.

Fifthly, respondents believe that **driving innovation** "*there are also investments and in key areas where there's innovation happening. Where we trying new things…failure and the celebration of ideas and ideation is really important that brings that creative, joyous energy…creates a good foundation for creating new culture*" (Tendani); "*In technology space we create space for innovation by ensuring that the architecture is there, working with our stakeholders, to identify use cases, and then to create successes upon which you can build credibility. So part of what we need to do is we also need to be able to feel that we are able to do this. We can't be scared to fail but the constraints that have been placed on us, both from a compliance as well as a financial perspective, sometimes we feel we can't afford to fail*" (Brigadia); **is paramount to encouraging DT culture**.

Sixthly, findings indicate there are also interventions in the functional areas on **ways of working** "*we've set up quite a few cross functional sessions now…and with part of the ways of working, there's a lot more cross functional collaboration that's taking place*" (Messi); "*I've started building relationships, that way it's easier to create influence people…it's about us building a level of credibility with these guys. it's about positioning, ideas of how we win together*" (Messi); "*the environment has a culture drive and ambassadors to keep the awareness and bring up this this culture issues and bring up interventions that need to be there…keep employees learning…have this like hype of excitement and stuff*" (Lilly).

Lastly, findings indicate that **culture is a strategic priority for the organization** "*culture is the way we do things around here…And if we're not all aligned in how we do things around here, you're not all doing things the same*" (Tamina); "*The big thing is obviously our culture change process that's underway…so as a company, we're starting off with bringing visibility and attention to what the culture is"* (Thomas).

5.10 Summary of Findings

Table 3 below provides a summary of the main findings across all contexts

Context	Main Findings
Digital Transformation	DT is critical for survival, impacts on all areas of the organization enabled by digital technology
Technology Context	The availability of digital technology is essential but it is only an enabler for DT. Key digital technologies in place are GIF, Fareye and Hybris, other digital tools exist and legacy ERPs requiring integration.
Organizational Context	DT leadership is critical to lead the organization, obtain buy-in and create a conducive culture. DT strategy guides transformation and requires a conducive culture DT relies on technology however DT requires a holistic organization transformation Digital workplace skills play an important role in DT are essential to prepare people's readiness for DT. While the available digital workplace skills are limited the organization has interventions to close the skills' gap. Importantly, digital workplace skills require a culture conducive for learning. Digital culture plays an important role in DT. While parts of the organization has a digital culture, the rest of organization's culture is not conducive for DT due to old school culture. Interventions are underway to transform the organizational culture.
Environmental Context	The e-Commerce industry is nascent and full of growth opportunities. There are notable types of competitors in the landscape including small players and the organization needs to overcome its challenges to leverage the resources and scale to compete with pure players as they have created a massive gap.

Table 3: Summary of main findings

5.11 Conclusion

This section discussed findings from the data collected during interviews, the process undertaken was described, followed by a description of the respondents interviewed. Thereafter, the findings were presented in relation to each of the sub-questions for the study.

6 DISCUSSION

This section relates the findings presented to the literature reviewed using the TOE theoretical framework and defined contexts to guide the discussion for the main and each of the research sub-questions.

6.1 Digital Transformation

Gurbaxani and Dunkle (2019) contend that the **success of organizations** today depends on their **ability to exploit DT** by having the appropriate **technology capabilities** and talent, building a **culture that enables change** (Gurbaxani & Dunkle, 2019), **strong leadership** (Kazim, 2019; Sainger 2018) and a **clear strategy** (Eden et al., 2019; Mahmood et al., 2019). Findings concur with the literature as respondents believe that DT influences all areas of the business, including but not limited to customer experiences, associate experiences, vendors' experience, leadership, strategy and workplace culture. This in keeping with Mahmood et al. (2019) stating that DT is when organizations transform their core business processes, using digital technology to improve all areas of a business. Erceg and Zoranovic (2020), Gurbaxani and Dunkle (2019) and Mahmood et al. (2019) support this, claiming that DT compels organizations to transform end-to-end by leveraging digital technology.

Furthermore, according to Teichert (2019), DT **leverages digital capabilities and technologies** to enable business models, processes and customer experiences to create value then evolves into an implicit holistic **transformation of an organization**. Mugge et al. (2020) and Teichert (2019) claim that DT is an ongoing progression of transformation enabled by digital capabilities, with **technology implementation being only the beginning**. So too, Mahmood et al. (2019) state that DT demands fundamental change in organizational processes, technology and the behaviour of the people. According to Eden et al. (2019), DT cannot be separated from the transformation of the workforce. Findings concur as most of the respondents seem to understand that retail DT not only involves using technology to improve traditional ways of working, but also requires a complete rethink of business processes and strategy. In addition, respondents believe DT is not merely about technology or the e-Commerce sales channel but rather one needs to consider how DT fits into the organization's strategy and creates competitive advantage. This aligns to Banda (2021), Mahmood et al. (2019), Eden et al. (2019) and Gurbaxani and Dunkle (2019) who claim DT occurs when organizations leverage digital technologies to improve their competitive advantage by bettering their customer service and interaction with their workforce. While respondents are aligned that DT transforms the environment for both the customer and the employees, others believe that DT creates new functions that did not exist before for the organization and new opportunities for small businesses, this finding confirms literature stating that DT not only creates capability for organizations to be able to respond and adapt to a fast-changing digital landscape (Banda, 2021; Eden et al., 2019; Gurbaxani & Dunkle, 2019) but also creation of new business lines or models (Fitzgerald, Kruschwitz, Bonnet & Welch, 2013).

While most respondents feel positively about DT, ethical concerns related to potential loss of jobs and a highly unionized environment which is prone to strikes and business interruptions were noted. One respondent however believes that DT does not result in job losses but takes the mundane tasks away and allows employee to be efficient in their jobs while several respondents believe that people can be upskilled. This is in keeping with Banda (2021), Eden et al. (2019) and Gurbaxani and Dunkle (2019) who states that DT improves performance of people.

These findings highlight that DT is not about technology, but DT is necessary for competitiveness, that organizations need to be prepared for end-to-end organizational transformation when undertaking DT and leverage digital technology to achieve their means.

6.2 Technology Context

While technology merely serves as enabler for the successful implementation of DT (Mugge et al., 2020), the availability of **technology or digital assets is a key enabler of DT** and thus understanding the technology context regarding the availability and characteristics of such digital capabilities within an organization is important.

Findings indicate that digital tools currently deployed at the organization include technologies such as **Global Integrated Fulfilment (GIF)** to automate manual and error prone picking and packing processes; **Fareye** to automate the processes for delivering orders to customers; **Hybris** to automate customer interface and content management system; other digital technologies which include **Electronic Shelf Labels** for digital pricing displays, the **Composable Platform** for reusable functionality; **Robotic Process Automation** for high transactional areas with low value and **Zoom** for virtual ways of working. Findings also indicate that opportunities exist to leverage AI and integrate disparate back-end ERP technologies. Literature supports these findings stating that organizations not only need operational backbone technology but also digital services' platforms for rapid development and implementation whilst enabling organizations to experiment and reuse technology (Sebastian, Ross, Beath, Mocker, Moloney & Fonstad, 2017). In addition, Technologies are changing the retail industry (Mimoun et al., 2022).

Furthermore, findings demonstrate that while the **organization currently has digital technologies** for e-Commerce there are **still gaps** with other capabilities needed and integration of legacy systems. This finding aligns with Fitzgerald et.al. (2013) stating that legacy technologies present material organizational challenges to DT as they do not work well with newer technologies. In addition, findings present new insights revealing that the organization must ensure that the technologies implemented enable a clearly articulated DT strategy.

These findings highlight the need for organizations to prioritize development of a DT Strategy. Thereafter, identify the technologies that will enable that strategy as technology alone will not achieve DT. New literature

by Robu and Lazar (2021) affirms that DT is necessary in this modern world riddled with volatility, uncertainty, complexity and ambiguity and requires a foundation based on people processes and technology to succeed.

6.3 Organization Context

To understand the organization, a number of contexts were explored. These contexts are DT Leadership; DT Strategy; Technology as an enabler for Transformation; digital workplace skills and digital culture.

6.3.1 *DT Leadership*

DT Leadership, which is **critical for successful DT** (Kazim, 2019; Sainger, 2018), describes the ability of the organization to lead the DT effort from the front while displaying unique transformational leadership qualities (Kazim, 2019; Sainger, 2018). According to Kazim (2019), this includes the leader's characteristics and leadership style as these influence DT. Kazim (2019) claims that poor leadership or lack of leadership results in catastrophic failures given that leaders are required to navigate complex situations, often with the inability to change the status quo inside the organization. New literature states that failure of leadership taking into account human factors weigh significantly to poor DT (Gaffley & Pelser, 2021). Findings align to literature as respondents overwhelmingly believe that leadership is at the center of DT and without leadership DT is not possible, as leadership gives DT direction, gets people to buy-into DT and enables organizations to manage conflict**.** Furthermore, findings reveal that leadership is more important especially in traditional brick-and-mortar retail organizations where entrenched leaders are change adverse, this concurs with new literature by Fitzgerald et.al. (2013) suggesting that there is a deep-seated perception that older people have challenges adapting to technology enabled change.

In regard to styles of leadership, characteristics and traits that are conducive for the successful implementation of DT, Kazim (2019) identifies technology entrepreneurship, **transformative leadership style, relationship focused style leadership and authenticity**. According to Erceg and Zoranovic (2020), DT leaderships calls for professionalism, **persistence to overcome employee resistance, change management**, technology astuteness and the ability to respond with agility when required. Findings concur as respondents indicate that leadership style, the character of the leader and leadership skills are all key areas that influence DT success. In addition, findings also indicate that leaders also need to have experience with DT. This is in keeping with Fitzgerald et al. (2013) who states that organizations do not have management character and experience to lead DT using technology.

Furthermore, respondents indicate **leaders need to possess a transformational leadership style** as they play a critical role in **articulating vision for DT, creating buy-in** to the DT vision, **pacing change, navigating the complex DT processes** and **leading from the front.** These findings align with the literature which states that DT leadership requires vision from top leaders articulated to people which brings buy-in (Fitzgerald et al., 2013), requires leaders to communicate actively and collaborate while using a top-down leadership approach

(Kazim, 2019). Infact, all transformations will succeed from top-down (Fitzgerald et al., 2013). In addition, literature states that leadership is required to foster a new culture and environment that enables DT (Eden et al., 2019; Gaffley & Pelser, 2021; Sainger, 2018) and finding indicate that leadership has established a conducive culture in the new e-Commerce business however there are challenges in all other parts of the organization which require focus. Consequently, leadership need to direct a culture change first and foremost together with new business processes (Gaffley & Pelser, 2021).

Consequently, organizations require transformational leaders to also direct a culture change first and foremost together with new business processes (Gaffley & Pelser, 2021).

6.3.2 *DT Strategy*

According to Eden et al. (2019) and Mahmood et al. (2019), an **effective *DT Strategy* describes the objectives that the organization pursues** through DT in respect to people, process, technology and others. New literature alludes that development of a DT Strategy to effectively leverage digital technologies is an imperative for DT success (Correani et al., 2020). Mahmood et al. (2019) claim that the development of an effective DT strategy is important in organizations and needs to ensure that people, processes and technology align to corporate goals and operations (Kazim, 2019). Furthermore, Mugge et al. (2020) affirm that a DT vision and strategy must be part of everything the organization does. Findings align to the literature as all respondents believe that a DT strategy is essential for DT as it guides the organization's DT efforts. In addition, a respondent reveals that a DT strategy does not only espouse what the organizations should do, but also what organizations should not to do. This is in keeping with (Correani et al., 2020) who state that diligence is important in ensuring organization actions are consistent with the digital strategy.

Furthermore, new insights indicate that some respondents believe that DT Strategy needs to focus on change and customer outcomes, rather than simply technology. In addition, respondents believe a DT strategy has many parts, is driven by inward and outward environmental scanning, is dependent on context of the organization and the strategy must be long-term to be effective.

Lastly, findings indicate some respondents feel that strategy is one of the main reasons why DTs fail, this is confirmed by Mahmood et al. (2019) and Correani et al. (2020) attributing an effective strategy for DT as critical for success or failure.

Regarding the role DT Strategy, findings indicate that majority of the respondents believe leaders need to possess a general understanding of the business followed by their vision in order to understand what is required for DT and to determine where the organization wants to get to.

Secondly, findings reveal that an understanding the ecosystem of an organization is essential to understand gaps; to build a compelling business case to ensure DT Strategy is feasible; to allocate resources to enable

implementation; to develop a roadmap to guide efforts and investments; to determine metrics that help with accountability and measuring progress and to allocate budget to fund the DT Strategy. These findings align to Fitzgerald et al. (2013) that leaders must develop a business case that is compelling, create a roadmap and enhancing it when necessary and make use of metrics to evaluate progress against their efforts for DT. In addition, according to Soto-Acosta (2020), key performance indicators measure qualitative benefits including customer engagement, customer satisfaction, internal efficiencies, learning and innovativeness.

Thirdly, findings indicate that most respondents believe that **the DT strategy is generally aligned to the overall business strategy,** while few respondents report some gaps in terms of clarity and integration of DT Strategy in the business, going further to indicate that DT Strategy is not aligned to the overall business strategy, neither is it clearly articulated and that the organization see themselves as a traditional brick-and-mortar retailer**.** These findings confirm Kazim (2019) stating that DT strategy ought to be aligned with corporate goals and operations. However, even with the gaps some respondents reveal that **there is opportunity for digital to not only be aligned to overall business strategy but to drive the business strategy,** Furthermore, everything the organization does should be DT. This assertion is supported by Fitzgerald et al. (2013) claiming that no organization is safe from digital competitive disruption and as such organizations need to succeed in DT enabled by technology. Infact, organizations ought to put digital at the core of their businesses, noting that digitally mature companies show alignment to support the digital strategy (Gill & Van Boskirk, 2016).

Fourthly, findings indicate that respondents believe DT **communication is required to obtain buy-in from people and bring them along the journey**. This is supported by Kazim (2019) and Mugge et al. (2020) affirming that a strategy cannot be effective or successful if leadership does not communicate relentlessly organization wide, this not only draws support for DT, but minimizes resistance from employees and helps articulate the value of DT which improves understanding of DT.

Fifthly, few respondents believe that you need **culture to create a conducive environment for DT Strategy.** This finding is in line with Guley and Reznik (2019) asserting that culture is so strong that a good strategy cannot materialise without a conducive organizational culture. According to Gill and Van Boskirk (2016), the highest digitally mature organizations have changed their organizational culture to be conducive for DT.

Lastly, a respondent believes commitment for the DT Strategy is required to support the long-term journey in agreement with Fitzgerald et al. (2013) stating that commitment is required.

The development and articulation of a clear DT strategy is important for DT success. The strategy has to be all encompassing in the organization, be communicated top-down in order to be effective in DT and lastly, a conducive culture is necessary for success.

6.3.3 *Technology as an Enabler for Transformation*

While the process of implementing DT successfully may start with the implementation of digital technologies, according to Mugge et al. (2020), **DT is much broader and spans organization wide transformation** from leadership, to strategy to digital skills and organizational culture. Findings are aligned to the literature as all respondents believe that DT is an organizational transformation enabled by technology. In contrast, one respondent adds that DT is about both the technology and organizational transformation as transformation cannot be achieved without technology. This assertion cannot be confirmed by literature as literature is universal in stating that technology is merely an enabler for DT and not DT itself**.** Mugge et al. (2020) and Teichert (2019) claim that successful DT is an ongoing process of transformation, with the **implementation of digital technologies being the start of organizational wide transformation**. According to Eden et al. (2019), Kazim (2019), Kokolek et al. (2019), Sainger (2018), Schiuma et al. (2021) and Teichert (2019) technology merely enables DT by facilitating transformation of the organization's workforce, projects, and entities. Findings are aligned to the literature as all respondents believe that DT is not possible without the right technology, however, merely implementing technology is not sufficient to ensure DT**.** According to Hopping (2000), Jiang and Stylos (2021) and Mimoun, Miltgen and Slama (2022), digital technologies play a significant role as an enabler for DT in retail.

Furthermore, findings indicate that respondents believe that while technology enables and determines the pace of transformation, **transformation of processes, customers, people, organizational culture and change management and strategy are also essential.** Some of areas requiring transformation for DT are operations, customer service, cross-functions, decision making, technology and general areas. These findings concur with Kane (2019) and Sainger (2018) claiming that a DT approach that focuses only on digital capabilities is unlikely to succeed. In addition, Gaffley and Pelser (2021) argue that while embracing technology is important to survive, it is leadership leading change in culture and business processes that is most important.

The findings indicate that technology should not be end goal for DT, but be treated as an important enabler that must be leveraged for overall organizational transformation success.

6.3.4 *Digital Workplace Skills*

Digital workplace skills describe the digital skills required for employees to work with and be effective with digital processes and technologies (Gurbaxani & Dunkle, 2019). According to Sainger (2019), the organization's workplace digital skills play an important role in DT and can either hamper or facilitate the success of DT. According to Vey et al. (2017), both leaders and employees must be equipped with competencies for digital processes which requires environments conducive for learning and nurturing of digital skills. Findings align to literature, indicating that majority of respondents believe that **digital workplace skills play an important role in DT** with regards to gaining appropriate workplace skills through training and evaluation of skills, mindset shift, embracing change and ways of working. In contrast, few respondents **believe digital workplace**

skills are not important as they can be learned, leadership must provide learning tools and the skills required should be learned with relative ease. The contradiction regarding workplace skills not being important for DT cannot be supported by literature.

Secondly, few respondents raise **macro-economic challenges regarding shortage of DT skills in SA**, this in turn impacts the availability of digital skills. In addition, few respondents indicate while parts of the organization's workforce have the required skills for DT, most respondents believe these skills are not pervasive in the organization. These findings align to Erceg and Zoranovic (2020) stating that skills and competencies needed for DT are currently in short supply in SA, with Accenture (2019) affirming that shortage of skills is becoming more prominent. Not only are skills in short supply, according to Erceg and Zoranovic (2020), they **require time to develop** which aligns with few respondents who indicated that skills can be developed through training internally and knowledge transfer. This finding is in keeping with Mugge et al. (2020) and Sainger (2018) finding that organizations must support **training efforts**, albeit formal or informal learning experiences to address the digital workforce skills gap.

Thirdly, findings indicate that respondents believe **the level and sufficiency of skills varies in line with availability of digital workplace skills,** however, in contrast few respondents believe that the level and sufficiency of digital skills is not important, that **what matters is accepting change, the culture, mindset and embracing change, to be resilient, use your initiative and be learning leaders**. This contrast is interesting as what is deemed important again is digital workplace skills which requires people to be equipped and work in conducive environment for learning and nurturing these skills (Vey et al., 2017). On the extreme end, a respondent believes the available skills are redundant and people must adapt to new ways of working, supported by another respondent believing that the available digital workplace skills are not sufficient for DT.

Fourthly, findings indicate that that new people have been recruited in e-Commerce and where there is redundancy of some skills and/or people, **to avoid job losses associates will be trained and upskilled for new DT customer centric roles**. Accenture (2019) concurs that automation permits for realignment of workforce to productive work and improve people performance (Eden, et al., 2019; Gurbaxani & Dunkle 2019). In addition, findings indicate that a new leadership Customer Innovation role and respective structure has been created to prepare for a new customer centric way of working for the organization. According to Sainger (2018) and Eden et al. (2019), leaders ought to develop new business models leveraging technological capabilities as enablers to equip the workforce for change whilst understanding and closing the workforce skills and competencies gap (Kazim, 2019; Sainger, 2018) and using HR processes to upskill, recruit and reorganize.

Fifthly, findings indicate that the organization is **implementing various interventions to close the digital workplace skills' gaps** identified, these include exposure to digital; nurturing a culture that embraces mistakes; changed organizational structures; embedding DT in organizational value;, ownership in different areas; thought leadership; talent management and retention and ways of working. This finding aligns to Sainger

(2018) recognizing the workforce skills gaps and implementing necessary interventions to develop requisite skills to create a digital enabled organization helps organization to succeed with DT implementation. However, few respondents believe no interventions are being taken to close the digital workplace skills gap suggesting that implementing digital literacy programs and making technology intuitive.

These findings indicate that digital workplace skills play an important role in DT, also important are the soft skills thus the organization must provide the enablers necessary for upskilling their people for a digital environment and build culture where learning, failing and change is embraced for DT success.

6.3.5 *Digital culture*

- ***Role of Digital Culture***

Digital workplace culture describes the dynamic culture required for DT to be successful which entails **an organizational culture that embraces learning, innovation and is flexible** (Gurbaxani & Dunkle, 2019). According to Teichert (2019), organizational culture plays an important role in the successful implementation of DT, **it acts as a barrier or an enabler**. Teichert (2019), Vey et al. (2017) and Eden et al. (2019) claim that a company's culture can be a deterrent of DT and thus changes to **organizational culture are a prerequisite for success of DT**. Fitzgerald et al. (2013) concurs that culture is a blocker for DT. Findings concur with the literature as all respondents believe overwhelmingly that workplace culture plays an important role in DT, however, few respondents believe alignment of structures for culture and leading by example are all pivotal for DT. This aligns to Fitzgerald et al. (2013) that culture can see employees resisting DT however clear structures reduce this risk.

- ***Current Workplace Culture***

Findings indicate that some respondents report that **parts of the organization have a healthy culture, but this is a small proportion of the organization**. This finding aligns to Teichert (2019), Eden et al. (2019), Erceg and Zoranovic (2020), Sainger (2018) and Vey et al. (2017) alluding to organizations needing a culture that is characterized by adaptability and responsiveness to changes in the environment. In contrast, most respondents report that **the rest of the organization has a culture that does not embrace change**, experiences **a pervasive old school culture** of blame, of doing things certain ways, a culture of compliance to processes and procedures which stifles innovation and is not conducive for DT. According to Fitzgerald et al. (2013), these are Dinosaurs who do not appreciate the DT opportunity and are reluctant to change their old habits. In addition, a respondent emphasizes that the organization does not have an aspirational culture and the highly unionized environment compounds the challenges. Few respondents, however, see these stark disparities in culture as an opportunity to shift mindsets, aligning to Erceg and Zoranovic (2020) that digital leaders ought to nurture a digital culture which is founded in continual learning, adaptability and innovativeness.

Findings indicate that the organization experiences that **the e-Commerce business being separate from the traditional brick-and-mortar business,** creating a perceived lack of understanding of role of the e-Commerce business. This is contrary to Erceg and Zoranovic (2020), Kazim (2019), Mugge et al. (2020) and Teichert (2019) alluding that digital innovations require collaboration and engagement approach focused on empowering people and change towards a digital culture. As a result, several respondents report building relationships and changing ways of working to collaborative ways to bridge the gaps between the digital and physical businesses.

- ***Interventions***

While Vey et al (2017) argue that the Learning and Development (L&D) function is critical as it shapes a culture of innovation and learning while treating DT as a transformation and supporting the organization through the changes, findings suggest that it is rather the **leaders that need to create a culture that supports the vision, an agile culture able to embrace failure and change**. This finding aligns to Erceg and Zoranovic (2020) that digital leaders ought to nurture a digital culture which is founded in continual learning, adaptability and innovativeness.

Vey et al. (2017) and Eden et al. (2019) emphasize the importance of starting with internal transformation when the organizational culture and structures are not flexible and agile to facilitate successful implementation of DT, as organizations that undertake this culture shift early are more likely to benefit from DT. Furthermore, Eden et al. (2019) states that a digital culture not only facilitates DT but also enables the leaders to prepare the workforce for successful DT. Contrary to this literature, findings indicate **an organization already underway with DT however recognizing that the culture is not conducive for DT and taking interventions to course correct**. Findings indicate that respondents believe there are a number of interventions at group level seeking to create the right culture, these are communication; focus on culture; accountability; leadership changes; driving innovation and ways of working. In support of these interventions, a respondent adds that there is room to mimic an area such as DE&I in terms of levels of clarity, communication and unambiguity on behaviours expected including behaviours not tolerated in the organization.

Digitally mature organizations have addressed organizational culture to embrace digital innovation while empowering employees with digital technology (Gill & Van Boskirk, 2016). Consequently, it is evident that a culture conducive to DT cannot be under estimated if an organization is to achieve DT success in all areas from leadership, to strategy and digital workplace skills. Culture is so important in DT that it needs to be the foundation for DT, it prepares the workforce with the right mindset to embrace change, to embrace failure, become adaptable and innovative which are all enablers for DT.

6.4 External Task Environment

According to Oliveira and Martins (2011) and Al-Hinai (2020), the external task environment describes the arena of business where an organization operates and in the DT context, this includes the e-Commerce industry, e-Commerce competition and e-Commerce regulatory framework.

6.4.1 *e-Commerce Industry*

The e-Commerce industry, while **small in comparison to the traditional retail industry, is an important industry growing rapidly** in excess of traditional brick-and-mortar retail (Kibuacha, 2021; Goga & Paelo, 2019 and Goga et al., 2019), with improvements in infrastructure only fuelling further growth (Goga & Paelo, 2019) thus affording retailers the opportunity to digitally transform and enter the e-Commerce market (Goga et al. (2019).

Findings concur as respondents report that while **the retail e-Commerce industry in SA is in its infancy i.e., nascent, it is a significant sector with high expectations of growth as it matures**. In addition, respondents believe that Covid-19 played a key role in the e-Commerce growth trajectory. This finding aligns with literature that states the Covid19 Pandemic has fast tracked DT in many sectors (Gabryelczyk, 2020) and impacted the both the demand and supply side of businesses, in particular compelling traditional brick-and-mortar retailers to go digital (Soto-Acosta, 2020). Despite the growth potential, respondents caution that **many issues need to be addressed to realize this potential**. Firstly, while some respondents report **that issues around trust with respect to security concerns and customer education threaten the growth potential**, others believe trust is no longer such an issue due to customer **experiences during Covid-19 which forced them to experiment with online shopping**. This finding aligns with Khayru (2021) affirming that not only did Covid19 pandemic force consumers to adapt the shopping behaviours to online shopping but also they got educated and experienced with digital.

Secondly, some respondents believe that growth is limited as DT mainly targets affluent customers, with SA having many unbanked customers and less advantaged consumers with no addresses for deliveries. Consequently, respondents believe that growth will only occur if these challenges are addressed, however, as some of these challenges are unique to SA, they **require unique solutions** in a different way perhaps **than in more developed mature markets else growth** may remain elusive. According to Khayru (2021), it is incumbent upon retailers to understand their customers and develop strategies that address their needs. Accenture (2019) suggests utilizing mobile connectivity and drones technology which allows for distribution directly to rural populations thus addressing the challenge of getting products to customers in marginalized areas. This model involves local residents acting as selling agents and distributors further lowering costs for customers (Accenture, 2019).

6.4.2 *e-Commerce Competition*

According to Businesstech (2021), Goga and Paelo (2019) and Goga et al. (2019) while **larger retailers dominate SA's e-Commerce space, smaller independent retailers have been able to penetrate the market** as e-Commerce removes high barriers to entry, lowers transaction costs and increases market exposure. Findings indicate that while respondents report that lack of reputation is a challenge for these businesses, they believe their small size is an advantage. Findings align to literature as they indicate that while the current e-Commerce landscape in SA is dominated by one local pure play retailer, there are multiple international companies, traditional retailers going online or omni-channel and smaller companies that exist in the landscape, competing in the emerging digital space that promises growth and market access opportunities in particular for small businesses.

Respondents report that while many players exist, findings indicate that only a few players operate in multiple categories, they believe that **pure-play companies operate better in the e-Commerce space as they have created first mover advantage and have created a huge gap in the market** but they have their challenges too. Regarding **traditional brick-and-mortar retailers** going online, findings indicate **challenges exist as they need to build on existing processes, reinvent themselves and consider their legacy systems.** This aligns to Sebastian et al (2017) stating that the old conglomerates have the challenge to reinvent themselves and compete as leaders in digital economy. Despite these challenges, some respondents believe **access to an existing customer base and a good past reputation benefits traditional brick-and-mortar retailers**. So too, these findings concur with Khayru (2021) claiming that Covid-19 has fast tracked online purchases providing opportunities for traditional retailers to complete online but also their physical customers migrate to online customers. Soto-Acosta (2020) affirms that Covid-19 compelled traditional brick-and-mortar retailers to go online and they have opportunity to differentiate themselves from pure-play retailers. In addition to existing customer base and good past reputation and according to Accenture (2019), so too is their Fulfilling and distributing capabilities an advantage.

Lastly, even though **international players are important as they have broad range of products**, findings suggest the lack of local presence and import taxes can be challenging. This is aligned with the literature that states that there exist efficiency challenges with taxation owing to cumbersome processes which serve as barriers for e-Commerce businesses (Goga & Paelo, 2019; Goga et al., 2019).

6.4.3 *e-Commerce Regulatory Framework*

The e-Commerce Regulatory framework refers to government dealings regarding e-Commerce in SA.
Due to the e-Commerce not being mature in SA there is significant caution against regulating too early (Goga & Paelo, 2019; Goga et al., 2019). Findings concur that in SA retail e-Commerce is nascent and thus imposing regulations may hinder growth. This situation is not unique to SA only, in developed countries regulations and

policies that relate to e-Commerce are in developing stages (Goga & Paelo, 2019; Goga et al., 2019) as they battle policy framework challenges. As such, Regulatory Framework is not being dealt with in this research.

6.5 Conclusion

This section discussed findings using the literature review and the TOE theoretical framework for each of the research sub-question. Firstly, the main research question was presented, followed by a discussion of Digital Transformation, thereafter the TOE contexts were discussed using prior literature reviewed or where required, new literature was used to support or contradict findings.

7 CONCLUSION, LIMITATIONS AND FUTURE RESEARCH

This section presents reflections on each of the sub-questions and main research question research implications, limitations and possible future research.

7.1 Reflecting on Technology Context

The **availability of technology or digital assets is a key enabler** of successful implementation of DT (Mugge et al., 2020). While findings indicate that the organization has available digital technologies such as GIF, Fareye and Hybris which are key to the e-Commerce operations and competitiveness, however, **there remains work underway to fully leverage their capabilities which will enhance the customer experience and enhance their competitiveness.** In addition, while the organization is prioritizing integration of the operational backbone technologies but also building digital services platforms for rapid development and reuse technology (Sebastian et al., 2017) using the Composable Platform, **there are legacy ERPs which are not yet integrated**. These legacy systems present material organizational challenges to DT as they do not work well with newer technologies required for DT (Fitzgerald et al., 2013). Lastly, even though the organization is investing in other digital technologies such as Robotic Process Automations, AI capabilities, Electronic Shelf Labels and Reporting Platform, implementation is still limited in the organization perhaps due to financial constraints and priorities **which is hindering progress for DT**.

7.2 Reflecting on Organization Context

Firstly, findings indicate that while **DT leadership**, which describes the ability of the organization to lead the DT effort from the front while displaying unique transformational leadership qualities, is seen in the organization **as critical to successful DT** (Kazim, 2019; Sainger, 2018), it is **more pronounced in traditional retail businesses where people are change averse** (Fitzgerald et al., 2013). Furthermore, findings indicate that the organization has transformational leaders who are able to articulate and get buy-in for the DT strategy, while at the same time leading from the front, pacing change, navigating the complex DT processes (Kazim, 2019) and fostering a conducive organizational culture. **The existence of transformational leaders is limited** to few parts of the organization and challenges in other parts of the organization require

transformational leaders to drive the DT agenda and turnaround the old school culture that is pervasive (Eden et al., 2019; Gaffley & Pelser, 2021; Sainger, 2018). In essence, **without leadership DT is not possible**.

Secondly, findings indicate that a **DT Strategy**, which describes the objectives that the organization pursues through DT in respect to people, process, technology and others (Correani et al., 2020; Eden et al., 2019; Mahmood et al., 2019), **is essential for DT as it guides the organization's DT efforts and must align to overall corporate strategy** (Kazim, 2019). Furthermore, findings indicate that leaders require a general understanding of the business and vision in order to understand what is required for DT and where the organization wants to get to; have an understanding of the organization's ecosystem of and to understand gaps; build a compelling business case to ensure DT Strategy is feasible; develop roadmap to guide efforts and investments and determine metrics that help with accountability and measuring progress in alignment to Fitzgerald et al. (2013). Findings also indicate that relentless communication is required at all levels of the organizations to obtain buy-in from people and to bring them along the journey, as this draws support for DT and minimize resistance (Kazim, 2019; Mugge et al., 2020). Findings indicate that DT Strategy requires commitment to support the long-term journey (Fitzgerald et al., 2013) and a digital culture to create a conducive environment for DT Strategy (Gill & Van Boskirk, 2016; Guley & Reznik, 2019). Lastly, findings reveal that while **the DT strategy is generally aligned to the overall business strategy**, there are some gaps regarding clarity and integration of DT Strategy in the business, in fact, insights reveal that DT **strategy must not only align to overall business strategy but needs to drive the business strategy putting digital at the core of what they do** (Gill & Van Boskirk, 2016).

Thirdly, while the process of implementing DT starts with the implementation of digital technologies (Mugge et al., 2020), findings indicate that **DT is broader and spans organization wide transformation** from leadership, to strategy, to digital skills and organization culture enabled by technology. Furthermore, findings indicate that while **DT is not possible without the right technology, merely implementing technology is not sufficient to ensure DT.** In addition, findings indicate that while technology enables and determines the pace of transformation, **transformation of processes, customers, people, organizational culture and change management, strategy, are also essential** (Gaffley & Pelser, 2021).

Fourthly, findings indicate that **digital workplace skills,** which describe the digital skills required for employees to work with and be effective with digital processes and technologies (Gurbaxani & Dunkle, 2019), **play an important role in DT** (Sainger, 2019). The role of digital workplace skills entails gaining appropriate workplace skills through training and evaluation of skills, mindset shift, embracing change and ways of working (Vey et al., 2017) which **requires environments conducive for learning and nurturing of digital skills**. Findings indicate that while some people have digital workplace skills required for DT, again this is not organization wide, perhaps perpetuated by **macro-economic challenges regarding shortage of DT skills in SA** and the workplace culture which is not conducive for learning. Furthermore, these digital workplace skills take **time to develop** (Erceg & Zoranovic, 2020) which the organization is undertaking through training

internally and knowledge transfer (Mugge et al., 2020; Sainger, 2018). Lastly, findings indicate **various interventions to close workforce skills gaps** such as recruiting for e-Commerce; creating a new customer office; exposure to digital; nurturing a culture that embraces mistakes; respective changed organizational structures; embedding DT in organizational values; ownership in different areas; thought leadership; talent management and retention and ways of working (Eden et al., 2019; Kazim, 2019; Sainger, 2018).

Lastly, findings indicate that **Digital culture**, which describes the dynamic culture required for DT to be successful; **an organizational culture that embraces continual learning, innovation and adaptability** (Erceg & Zoranovic, 2020; Gurbaxani & Dunkle, 2019) plays an important role in the successful implementation of DT (Teichert, 2019). While emphasis is on a healthy workplace culture that embraces change, findings indicate that it is not possible without alignment of organization structures for culture and leadership leading by example (Fitzgerald et al., 2013) as this minimizes risk of employee resistance. Findings indicate that **parts of the organization have a healthy culture,** however, the **rest of the organization has a culture that does not embrace change**, experiences **a pervasive old school culture** of blame, of doing things certain ways, a culture of compliance which stifles innovation, all of which are not conducive for DT (Fitzgerald et al., 2013). Findings indicate that the organization recognizes the work required to turnaround the organizational culture, indicating interventions seeking to create a digital culture, such as communication; focus on culture; accountability; leadership changes; driving innovation and ways of working. According to Eden et al. (2019), digital culture as a foundation will not only prepare an organization and its people for DT but also improve the process. Perhaps this maybe a missed opportunity for the organization and it remains to be seen if the interventions will be sufficient to yield the desired outcomes.

7.3 Reflecting on External Environment Context

Findings indicate that while the retail **e-Commerce industry** in SA is in its infancy i.e., nascent, it is a significant sector with high expectations of growth as it matures (Goga & Paelo, 2019; Goga et al., 2019), with improvements in infrastructure only fuelling further growth (Goga & Paelo, 2019). Importantly, findings indicate that Covid-19 Pandemic played a key role in the e-Commerce growth trajectory not only compelling retailers to go online but forcing consumers to adapt their behaviours likewise (Gabryelczyk, 2020; Khayru, 2021). Furthermore, findings indicate that growth in SA is limited as DT mainly targets affluent customers and SA has many unbanked customers, as such growth will only occur if these unique challenges are addressed with unique solutions tailored to the challenges for SA (Khayru, 2021; Accenture 2019).

Findings indicate that while the current **e-Commerce competition** landscape in SA is dominated by one local pure play retailer, there are multiple international companies, traditional brick-and-mortar retailers going online and smaller retailers that exist in the landscape (Businesstech, 2021; Goga & Paelo, 2019; Goga et al., 2019) making the landscape a very competitive one. Findings indicate that pure-play retailers operate better in the e-Commerce space as they have created first mover advantage and have created a huge gap in the market,

however, traditional brick-and-mortar retailers are going online but experience challenges due to existing processes and legacy systems which require reinvention to compete (Sebastian et al., 2017). Furthermore, findings indicate that traditional retailers have an existing customer base, a good past reputation which benefits them as customers migrate to online and a physical distribution network for Fulfillment (Khayru,2021; Accenture, 2019) giving them opportunity to differentiate themselves from pure-play retailers if they can overcome their legacy challenges.

7.4 Reflecting on Successful Retail Digital Transformation in South Africa

Using the TOE framework to answer the main research question *"What does successful DT implementation in a SA retail organization entail?* provided an in-depth understanding of technology, organization and environment contexts that influence successful implementation of DT whilst also providing a basis for a holistic approach to DT. Whilst the contexts span leadership, strategy, technology, digital workplace skills, culture and external environment, there are few imperatives. Firstly, DT is a critical to remain competitive in the digital economy (Gaffley & Pelser, 2021). Secondly, digital culture is common theme across all contexts, it is the common denominator required for DT to be successful, with technology as an enabler for transformation. Thirdly, leadership is imperative not only to lead DT effort but to direct culture change together with new business processes (Gaffley & Pelser, 2021). Fourthly, development and implementation of strategy is important to guide DT efforts. Lastly, the complexity of traditional business marred by old legacies requires careful attention if the organization is to succeed with DT.

The organization has demonstrated transformational leadership, clearly articulated DT strategy aligned to overall business strategy, recruited digitally skilled workforce with a digital culture, however, only in a small part of the organization. There are lessons that could be drawn from that for the rest of the organization while turning around the legacy environment to become a digitally transformed enterprise that is customer-centric and digitally-enabled.

7.5 Research implications

7.5.1 *Theoretical*

As limited research has been conducted and published in regard to the South African retail context in regard to DT, this research contributes to the limited existing knowledge base, with empirical findings. Next, the study utilised the TOE theoretical framework to understand DT as an organization wide transformation process. TOE provides a useful framework for guiding research design, data collection and analysis and proved suitable for the disruptive and large organizational change due to DT. Lastly, the study contributes important knowledge on what specific aspects need to be considered and accounted for when conducting DT.

7.5.2 *Practical*

Practical implications of this research are important for a number of stakeholders. Firstly, it is crucial that leaders of DT efforts within organizations are aware that while technology is an enabler of DT, a more holistic approach encompassing leadership, strategy development and implementation aligned with overall business strategy, empowerment of the workforce with digital skills and a conducive culture, is required. Secondly, for business leaders transforming traditional brick-and-mortar retail businesses, it is essential that the added complexities of legacy environments must be managed to ensure DT success. Thirdly, entrenched leaders and employees need to recognize that digital is a necessity for business survival and adapt accordingly.

7.6 Limitations

A number of limitations are noted. Firstly, as the research aimed to understand successful implementation of DT, data was collected through interviews for ten respondents in different roles within the organizations who were purposively selected to provide diverse and rich data. While saturation was reached after six interviews, given the broad context, it is likely that potentially important perspectives from other people within the organization have not been included. Secondly, while the organization may exhibit similar characteristics to other traditional retailers in SA dealing with similar complexities inherent with being a traditional retailer, this researched focused only on one organization. Therefore, it is possible that other organizations may have different context and findings. Thirdly, data was collected through interviews which rely on self-reported data. It is possible that respondents may not have accurately reported the DT situation within their organization.

7.7 Future Research

Firstly, while the findings indicate that the organization is equipped with appropriate leadership and a clear strategy to guide their DT efforts and investments, many challenges exist due to inherent legacies of a traditional business in regard to current technology, sufficiency of digital workplace skills and the organizational culture. Therefore, future research may investigate whether these challenges will be overcome once all the specified interventions have been undertaken. Secondly, even though a single case study is useful to understand a particular context, future research across all large retailers in SA would be useful as it can provide insights into country-wide requirements for successful DT implementations. Thirdly, similar research in other developing countries may be useful in offering insights of how SA retail organizations' DT compares to other countries with similar challenges. Fourthly, the utilization of mobile connectivity and drones technology for distribution directly to rural populations maybe critical to addressing the challenge of getting products to customers in marginalized areas. Therefore, a future research may investigate the feasibility of this solution to resolve the unique challenges in SA.

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9 APPENDICES

Appendix A- Interview guide

A. Digital Transformation

i. Please define retail Digital Transformation?
ii. In your opinion what key areas of the business will be impacted by DT?
iii. How do you believe these key areas will be impacted by DT?
iv. Is there anything you would like to add regarding DT?

B. e-Commerce environment

i. How would you define the retail e-Commerce industry in SA?
ii. Please describe the retail e-Commerce competition landscape
iii. How do you believe your organization fares in this competition landscape?
iv. Is there anything you would like to add regarding the retail e-Commerce environment?

C. DT Leadership

i. Please explain whether you believe leadership plays a role in DT?
ii. What key elements of leadership do you consider important for DT?
iii. How do these elements play a role in the implementation of DT?
iv. Is there anything that you would like to add regarding the role of leadership in DT?

D. DT Strategy

i. Please explain whether you believe an effective Strategy plays a role in DT.
ii. What key elements of an effective DT Strategy do you consider important for DT?
iii. How do these elements play a role in the implementation of DT?
iv. Is the DT Strategy aligned to the overall business strategy?
v. Is there anything that you would like to add regarding the role of DT Strategy in DT?

E. Technology as an enabler for DT

i. Please explain whether you believe Digital Transformation is about Technology or organizational Transformation?
ii. What digital technologies does your organization have and what they used for?
iii. Which parts of your organization would need to transform? Please explain.
iv. Is there anything that you would like to add regarding the role of technology as an enabler for DT?

F. Digital workplace skills

i. Please explain whether you believe digital workplace skills plays a role in Digital Transformation.
ii. Does your workforce have digital workplace skills required for DT?
iii. How would you define the levels of digital workplace skills in the organization?
iv. Are the digital workplace skills sufficient for the DT journey? Please explain.
v. What interventions are you taking to close the skills gap?
vi. Is there anything that you would like to add regarding the role of digital workplace skills in Digital Transformation?

G. Workplace culture

i. Please explain whether you believe workplace culture plays a role in Digital Transformation.
ii. How would you define the workplace culture in your organization?
iii. Do you believe the culture is conducive for DT?
iv. What interventions are you taking to turnaround the workplace culture? Please explain.
v. Is there anything that you would like to add regarding the role of workplace culture in Digital Transformation?

Appendix B – Ethics Forms

B-1 Participant Information Sheet

Dear (name of potential participant),

I am currently studying towards a Masters' degree at Witwatersrand University with the School of Business Sciences. With the rise of e-Commerce in South Africa retail sector and its growth pattern exceeding traditional retail make it a significant sector I am carrying out research to *understand successful implementation of Digital Transformation in a South African retail organization*. The research aims to contribute academic knowledge and to utilise these insights to develop guidelines that can be used by retailers to assist in successfully carrying out Digital Transformation implementations. The study holds no preconceived notions about successful implementation of Digital Transformation in South African retail, but rather aims to explore the phenomenon and therefore your opinions and experiences are important.

As an associate working in (the organization), you are invited to take part in this study to share your experiences about Digital Transformation in retail. Your participation is entirely voluntary and involves no risk, penalty, or loss of benefits whether or not you participate. If you agree to take part you may refuse to answer any questions you feel uncomfortable answering, during the interview. If you agree to participate in the interview, arrangements for the interview will be made at a time that is suitable for you. The interview is expected to last approximately one hour and you may withdraw from the interview at any time.

With your permission, the interviews will be recorded, and notes will be taken. No one other than the researchers will have access to the recordings or notes taken. To ensure your confidentiality, your name and personal details will not be disclosed, with a pseudonym being used to report findings. It will not be possible to trace responses back to any individuals. The recordings and notes will be kept until no longer needed for producing publications.

Thank you for considering participating in this research. Should you have any questions, or should you wish to obtain a copy of the results of the survey, please contact me on 083 718 3839 or email me on 331140@students.wits.ac.za or my supervisor Dr Suzanne Sackstein on 011 717 8158 or email suzanne.sackstein@wits.ac.za

Yours sincerely

Tshisevhe Nnzeru

B-2 Participant Consent Form

1. *Research information*

1.1 Title of research project: **Understanding successful implementation of Digital Transformation in a South African retail organization.**

1.2 *Researcher details*: Tshisevhe Portia Nnzeru, School of Business Sciences. Email: 331140@students.wits.ac.za, mobile phone: 083 718 3839

1.3 *Research study description*

i. This research aims to understand successful implementation of DT in a SA retail organization.

ii. Respondents will be invited to take part in a face-to-face interview lasting approximately one hour in which questions will be asked relating to their understanding of factors influencing successful implementation of Digital Transformation in retail context. The interview will be recorded with the consent of the respondent.

iii. There are no risks to respondents for participating in the research interviews as no names and personal details will be disclosed and no responses will be traceable back to individuals. Pseudonyms will be used.

2. *Informed consent*

2.1 I, (name of respondent) _____ hereby voluntarily grant my permission for participation in the research as explained by Tshisevhe Nnzeru.

2.2 The nature and objective of the research have been explained to me and I understand them.

2.3 I understand my right to choose to participate in the research and the information I provide will be handled with confidentiality. I am aware that the results may be used for purposes of academic publication.

2.4 Upon signature of this consent form, the respondent will be provided with a copy

Signed: _____ Date: _____

Researcher: _____ Date: _____

B-3 Company Permission

[redacted]

26 September 2022

Dear Tshisevhe,

Permission to conduct research at [redacted]

1. Title of the research project: **Understanding successful implementation of Digital Transformation in a South African retail organisation.**

2. I, _Merlin Otto (name of company representative), in my capacity as Central Support Executive (position of company representative) for [redacted] (name of company), hereby voluntarily grant permission for the participation in this research project, as explained to me by Tshisevhe Nnzeru (name of researcher).

3. The nature and objective of the research have been explained to me and I understand them.

4. I understand my right to choose whether to participate in the project and that information collected will be handled confidentially.

5. I understand that my name, the name of the company and the names of the participating employees will not be disclosed in the findings.

6. I am aware that the findings of this research will be used for the purposes of academic publication.

I Merlin Otto (name of company representative), for [redacted] (name of company) agree to distribute an email from Tshisevhe Nnzeru (name of researcher) inviting employees to participate in interviews.

Company representative [redacted] Signature [redacted] Date: September 26, 2022

[redacted]

Appendix C – Sample Interview Transcript

Pseudonym: **Tendani**
Demographic: **Female**
Role: **Executive Digital Transformation**

Researcher 00:01
There are seven sections to the interview. The first is questions on DT. The second is on the e-Commerce environment. The third is about DT leadership. The fourth is on DT strategy. The fifth is on technology as an enabler for transformation. Fifth is on digital workplace skills. And the last one is on workplace culture. There are no right or wrong answers. I'm simply trying to understand successful implementation of DT. Please stop me at any time. If there's anything you don't understand, or need me to clarify. First section, please define retail DT.

Tendani 01:09
So if you can repeat the question, but I think you broke up a little bit,

Researcher 01:14
Define retail DT.

Tendani S01:21
Okay. So I think DT business transformation across the board is actually the same thing at the end of the day. And retail obviously has a slightly different expression of it**. In retail** we've got for me **digital business transformation is all about understanding the experiences that a customer is going to have. And then enabling new ways of addressing that, creating new business models, creating multi-sided business models, but really, it has to anchor on understanding your customers.** In retail, specifically, I think the primary thing that comes up over and above the business models and how use data is related, **you have to understand your customer**, **and the customer isn't an online customer or in-store customer, you know, customers are customers and they live in a digital world, which means that they want to be able to integrate the analog world with the digital world.** And then when you do that, then you obviously start using the different domains to enable that to our new ways of customer interaction. So I think that's **the biggest aspect** for me **about DT in retail is that you have to understand that your customer isn't it doesn't have a single persona, they show up with multiple personas and multiple use cases** and you need to span that for all of them.

Researcher 02:44
Thank you, in your opinion, what key areas of the business will be impacted by DT?

Tendani 03:02
Um, so I think the key areas that are impacted, obviously, is has got a lot to do. You know, the obvious ones is **your online presence, your social media, understanding how customers see you and perceive you in the world.** And that your customers have to, **you have to turn your customers into fans**, right? **They're not customers in the sense where you, you persuade them to buy from you, they now actually advocate for each other, and they advocate for you.** So then **that's a big change in terms of understanding that from an online perspective, and understanding your view of your customer.** But I think **the other side is not always thought of, is that, how do you take that online customer, that customer that lives in a world where they can research anything, look at reviews about you as a company, your products, and**

understand how does that show up in your store? So **how do you create digital interactions that digital inter persona inside a traditional retail environment**? So I think that's that's gonna have a big impact. And of course, then a great understanding your customer **understanding what these new value propositions are**, is not simply by buying a product anymore. It's about wanting to understand the content, what you offer them, looking at your sales funnel differently, that's all the things that you need in the business side. But of course, **you have to have that enabled by technology** and **what I find a lot of areas of the business not understanding is there's two main things. The one is that the experience that you want to offer your customer is only going to be as good as experience that you enable for the employee who has to support a customer. And then the second thing is you have to understand the progression of digital. To go from** a very kind of **analog paper based world** world **to a digitized world** that take those artifacts that have an analog and make them digital **but that's not DT, that's just stepping into it.** And then of course, **you enable your employees, you enable customers through a workflow, which is the digitized artifacts in a digital way of working. But the DT itself, are enabled by those things enabled by the processes enabled by the technology. But it's actually the mindset difference in understanding that in this digital world, things change so quickly and so fast, that you have to architect your organization from a people, an operating perspective, as well as from a technology perspective, to be responsive to your customers and responsive to the market. So it touches on every aspect of the business.** That's actually the challenge. It's not, you can't outsource to technology, **you have to have every person's mindset knowing that they are a digital citizen. And so the customers or represents a portion of them, and that digital mindset is what you need to bring in across every aspect of the business.**

Researcher 06:06

Yes, thank you. You've already answered the next question, which is, how do you believe these areas will be impacted by DT, and for online presence, for understanding the customers, and how this all shows up in the physical store, and the new customer value proposition you've kind of outlined as you go. And you've closed off by saying that they're all enabled by technology, by process, and also the operating model, closing off to talk about the mindset shift in this whole journey, and also touching on the two things that affect why DT doesn't work, which is in terms of the employee experience, and what we think digital is as opposed to what it is. Anything you would like add?

Tendani 06:59

One other thing, just to add on to that.So to add on to that, what I would say also is **understanding how we use data,** right? Today, we've traditionally use data to improve our processes, to manage compliance and governance, to financial records, etc. The one aspect of that it impacts us is **how do we use data to create insights and those insights and drives the decision making the mindsets, the changing behaviors for both us as employees but also for customers?**

07:37

Great, thank you. We'll move on to the e-Commerce environment. How would you define the retail e-Commerce Industry in South Africa?

Tendani 07:52

You know, it's quite a it's quite a tough one. I think we've got quite **a diverse market in South Africa around retail.** But I think what we still have **is a very basic kind of online presence and experience**. So you know, **if you take digitize versus digitalized versus DT, e-Commerce space in South Africa is very much around that digitalize we've, we've started to put together very good digital workflows, go online, buy the products integrated with every function,** etc. With with with COVID and the lockdown, I think people have realized that more of that has to be in a real time type environment where this quick response just taken the

accessibility of retail and made it more available from a digital perspective. If we will look at [redacted] and those types of things [redacted]. But I think what we don't have **where we still immature in our markets is the ability to eliminate to a large degree, the need to go into a store.** And this is very specific to certain industries, right **like clothing and jewelry**, where if you go look**, it's not using technologies like 3d visualization where you can actually try on a new hairstyle or try on an item of clothing**. So I think when it comes to the newer technologies, that makes your online experience more visceral, where you could for example, decide I want to redesign a room, take a photo of the room, repaint the colors and have a vision or an e-Commerce perspective. That is where in the South African market is still not all that mature.

Researcher 09:38
Thank you for that. And how would you describe the e-Commerce competition landscape for retail?

Tendani 09:50
Sorry, sorry, you broke up a little bit. Can you just repeat it?

Researcher 09:53
How would you define the retail e-Commerce competition landscape?

Tendani 10:02
That's a tough one, I think, I think, you know, kind of based on the previous points, **we have various levels of maturity.** But it depends how you measure that, **if you look at just basic e-Commerce, you've obviously got some big players in the market take a lot, you know, we've got macro, the macro marketplace**, all those sorts of things. And what **we are seeing is a growth in marketplace activities where are online retail platforms** like [redacted] comes in, and **they provide a platform for smaller businesses to sell their products on, versus where we actually represent your own products**. Let's say **there's a big a big change in that marketplace, which changes the competitive landscape**. Other than that, **most of our e-Commerce** is really a kind of **a like for like comparison**, if you look at the different industries, or whether you're looking at clothing. And even if you look at your typical physical retailers as an online, **they just take what they've got in the physical store and make it available online**. I think **there's a lot of ability to be more competitive and to transform the landscape by looking beyond the basics,** right. So we still see with a lot of retailers that don't necessarily have even the basics, you know, the features and benefits on a site. And a digital customer will then go look at another site to say, do you have a same product. And so, it introduces competition when you don't have the maturity, but somebody will go look somewhere else, exposing them to your competition. So **being able to, to offer a really comprehensive, good quality, immersive experience, from e-Commerce perspective, that then seamlessly delivered to you at with the same type of expectation, you can get up and walking out of the store with a product that you could touch, feel and almost experience, that's, that's where we starting to see differences in a competitive landscape.** And **the organizations are able to do that more effectively** blend that analog and digital experience but with a superior digital primary interface**, that's probably where we're going to see some some changes happening and where some retailers can really kind of outstrip the competition**. And **that's really where you start leveraging the digital environment where you get this exponential growth, r**ight. That's, that's so at the moment, pretty much nascent. But I think the the organizations that can make that jump, that's a true DT, that's where you're going to see competitors start separating themselves.

Researcher 12:49
How do you believe your organization must not fail in this competition landscape?

Tendani 12:58

So I think [redacted] **in the last two years have come a long way in terms of e-Commerce**. I think, you know, **having the backing of a** [redacted] **who's gone through this has certainly helped**, you know. I think well, [redacted] does pretty well, in terms of **having** what we discussed **the ability to, to buy a product, a** [redacted] **product, a** [redacted] **product**, a [redacted] product as if you were in the store but **they also have the marketplace capability, which opens up that ability for customer to have a wider shopping experience** through the [redacted] brands. And so I think that's a, **that's a really good competitive advantage.** Because that that creates a space for customer to come to you versus a place to shop. So this you almost become a trusted marketplace, with your own ranges that give you an advantage, but also having the the breadth of what customers may be looking at from a different perspective. But that obviously does need that you need to have all those basics in place, you need to have your product information experience has to be good. Your delivery or pickup experience has to be enabled, and you and that you have to get really good at doing that a lot faster. So that now for example, we look at [redacted], for example, [redacted] are not on every street corner, you don't have a [redacted] on every street corner. So if you want to buy a [redacted] product, you need to be able to get it delivered quite quickly. Otherwise, they may go somewhere closer, which is more convenient for them in this urgency. So I think that understanding your customer buying patterns is going to be important, **but having the physical retail space, the very specific brands and self-owned products versus with the Marketplace does put** [redacted] **in quite a good position.**

Researcher 14:44

Great. Is there anything you'd like to add on the retail e-Commerce environment?

Tendani 14:52

Oh, no, I think I think that's it's I think, you know, **the biggest challenge** as I said for retail e-Commerce **is giving a customer,** you have to give the customer **the same experience on e-Commerce or better than you can have on the store and vice versa.** And that's the challenge of retail is where does the customer get? Can the customer get the best of both worlds from you?

Researcher 15:17

Thank you, we will move on swiftly to DT leadership. Please explain whether you believe leadership plays a role in DT.

Tendani 15:30

I **think leadership is crucial to DT**. Because **because digital is a mindset more than a technology or process**. So **you** really do **need to,** to **bring the customer together with your execution and agility in the organization**. And so the **mindset from a leadership perspective is, it's really important to get that right**. Otherwise, it becomes quite challenging. Added to that, **in this digital world, things change really quickly, so if you don't have that mindset, change, fatigue, change resistance becomes one of your biggest challenges that you have to overcome as an organization.** So I think the leadership is very important. Also to **not just in terms of managing people, but also to help individuals inside the organization, as well as customers develop a digital identity.** When you adopt a digital identity, and you realize that you are as an employee, user, associate, you are as much a digital citizen, whether you are a digital native, or whether you are a digital nomad, you are part of this digital world. And so your experience is actually what qualifies you to represent the customer. Because **outside of coming to the work place, you're also a customer. And so that mindset that you don't divide yourself and separate yourself, from your customer and from your vendors and from that, all experience is a really important part of leadership. And that brings a lot of different things, continual learning, a growth mindset, being not being afraid to fail, right? All of those things come from good digital leadership.**

Researcher 17:12
So you just started answering the second question. I was it is, what key elements of leadership do you consider important for DT? And you finished off by mentioning continual learning, growth mindset, not afraid to fail? And then you talked about before that the ability to help the individual and the customer with respect to the digital identity, you talked about agility, and also having the customer at the front of this and you started off? Talking about mindset?

Tendani 17:52
Absolutely. So maybe **one thing to add on to that is almost the the idea of always being paranoid**, right. And that, that's not a bad thing. It's not, **it's not fear inducing, because of the rates of change**. **Because I think the biggest challenge that you can have in the digital space is things change so quickly.** If you just use example of, of COVID, right, it's not something that was caused by a market condition, it was something greater than us, that totally transformed the way we lived, the way we looked at our health, the way we procured, the way we work. And so I think **that ability to to always expect the unexpected, and to embrace that unexpected, and the change that comes with that is probably the overarching leadership characteristic that we need to bring into the organization.** And that **with that also the means we talk about psychological safety, and** and an **embracing failure, quick, learning quickly, failing fast.** But I think what that is also **encouraging a challenging mentality in terms of asking the questions, not always agreeing**. I think if you have a culture where it's very much authority based, where there isn't decentralized decision making, by challenging the status quo, acquiring the thought processes in a constructive way isn't encouraged, you're actually stifling innovation. So I think that's a that's another just a something that ties all of those other items together.

Researcher 19:26
Absolutely. Thank you. My third question is answered how the elements that you've described for leadership play a role in DT. And the last one, is there anything else you'd like to add?

Tendani 19:43
I think I think that's it. I think maybe one thing that is interesting, **I think is in terms of diversity and the value of diversity in DT.** I know we tend to think of the diversity part as gender or race but I think diversity **in terms of bringing associates into the organization from other industries that may not seem like a traditional career move, to understand to look at your customers as how diverse they can be**. **So not looking at who your customers are today, but who your customers could be, or who your customers today may be in five years,** right? Because we all evolve. So bringing **that diversity in thinking that comes from having people surrounding yourself with people that are diverse.** And one of the most important things where I think **in South Africa, we sometimes overlook** something is that that also means having people formal education, and **having people with informal education, because that's representative.** So **your organization has, to some degree, represent your market represent your customer base and so that becomes a much more effective way of measuring diversity** compared to what just a standard triple BEE or gender diversity aspects look at. And so and then you actually have a benefit of looking at your customers and the market is, diversity actually brings all sorts ticking all the other regulatory diversity items that we need to check as well. So, there's there is a double benefit to what taking a diverse approach in how you look at organization brings

Researcher 21:27
Very profound insight, the moving along to DT strategy and we miraculously doing well, for time so far. Please explain whether you believe any effective strategy plays a role in DT.

Tendani 21:49

I think I think **an effective strategy is crucial because there are so many moving parts**. **But even before strategy,** what I've seen in most organizations is when you start using the word digital, people all attach different definitions to it. And so truly understanding what digital business transformation is, what the core domains are, and then building out your strategy around each one of those domains, building a maturity **becomes really important. Otherwise, you're almost playing around, and you're doing more ad-hoc digital activities than driving a transformation strategy.** I mean, **transformation strategy is all about change except in the digital world, that change never stops, you don't go through phases of change, it's a continuous cycle.** So **not having a strategy, not reviewing that strategy and adapting it on a continual basis, is actually where I think it often falls flat**. **Added with the fact that you have to understand what are all the aspects that enable or disable the execution of a strategy.** And so it's not something that happens to the sideline, **it's something that impacts every, every part of the organization to some degree.** And that's why the strategy is so important. **Otherwise, you cannot coordinate that across all the aspects that you have to, to attach in the organization.**

Researcher 23:17

What key elements of any effective DT strategy do you consider important?

Respondent 2 23:24

So always, I've got I've got two things that are always I think, **what does a digital organization create?** Okay, **what is the what is the outcomes that you're looking for?** For me, **there are three, three things there.** The one is that **you want to create value at New Frontiers**, or the business world. So you want **to relook at your traditional business models.** Through that you want **to create value in the process**, processes that execute that vision of a customer experience. **So the process itself that the customer experiences has to deliver value**, the processes that create that experience for the customer has to produce value, it **cannot only introduce costs.** And then the third part of it is **you need to build those foundational capabilities that support that entire structure**. And **then to do those three things, you have to look at five domains.** The first domain is looking at **your customers, you have to understand that they change from passive targets to dynamic network.** So you can't just broadcast information at them, you have to understand that in the digital world, customers live in a live in a digital world where they can research you they can, they can do reviews about a product that you have on Amazon, and you have to understand that whole network that the customer lives in. You also have to understand **the second domain is competition.** So you have to understand that **it's not about your product anymore, it's actually about the platform that that you enable for your customer.** So now the marketplace is a good example that the customer doesn't just come to you to build buy your product, but they come to you to be to be able to get a range of products with an outcome that is specific to them with the full value chain or the experience around how they receive the products, how they how that experience I've had with you impacts their life. The third part, **the third domain is data.** So understanding **you're not using data to just manage your process, but it becomes a strategic asset, and how you view the world and how you make decisions.** So the insights are very important. **The fourth domain for me is innovation. So a lot of innovation is about planning and thinking and imagination, real innovation is extra, doing a trying and learning or prototyping and failing**. And then **the last one is** the big challenge that we kind of discussed is **around value**, your traditional businesses had look, no in all it when all these other domains are in a more analog space, you've got a customer that you both cost to you got products that you sell, your processes are pretty. And your data is pretty stable, because you're just using it for incremental improvements. And innovation is something that you do on the sideline. In a world where you have to not have only have a sustainable business, you have to have a business that is continuously adapting, you truly need to understand the value that you are delivering into your society into your customer into your marketplace into your vendor workspaces. So really looking **at value from a how do I constantly adapt, rather than just**

sustain the business is really important, because that becomes a true risk. If you if you cannot adapt, you will die in a digital space because everybody else, it becomes so much easier for somebody else to surpass you because of the power that digital technologies enable them to use.

Researcher 26:47
Thank you, you answered the next question, which is how the elements you identified play a role in the implementation of the DT? The fourth question is, is is your DT strategy aligned to the overall business strategy?

Tendani 27:07
Are they? That's a good question, because because which one should align right? **Should the business strategy around digital or is it the other way around?** And I actually think, ultimately, **the goal is that whatever you do in your organization, should be your digital business transformation strategy. They're not separate.** So I think if they're not aligned, if you're going to try and do digital business transformation, as a side project, then you're actually probably not doing that digital business transformation, you're actually doing the digitizing or digitalizing, you're not actually transforming a business to show up as a digital business in a digital world. There's the customers, so they definitely should be aligned. I think that in the longer term, I think, what is the challenge? And perhaps what the question leads to more is where how do you start, when you don't have an organization that is mature in its understanding of digital business transformation, and they I think you can be a lot more opportunistic. And understand we are the areas in your business, that there's a really a challenge that you need to help them leapfrog. Otherwise, you will never catch up or find a core initiative, that **if you start your digital business transformation, then it almost drives immersive and possess pervasive influence into the organization**. **So yes, they should be in alignment**. But in an ideal world you drive into it is the same thing.

Researcher 28:37
Anything that you would like to add regarding the role of dt strategy?
Tendani 28:45
I think the role of DT is crucial, like I said, for me, actually, ultimately needs to be totally interwoven into the overall strategy. I think if you think that if **the question you have to ask yourself is what would happen to our business if we didn't have a digital business transformation strategy? And the answer there is going to tell you, where do you really have to interweave this with your existing strategy or to merge them entirely and the pace of which you do that is going to depend on that answer and the impact of not of not adopting the strategy.**

Researcher 29:23
We'll move on now to technology as an enabler for DT. Please explain whether you believe DT is about technology or organizational transformation. And you've said a lot about business DT and the difference between digitizing and digitalizing.

Tendani 29:49
So for me, digit digit digitizing is technology, **digitalising is process and technology, digital business transformation is people, technology and process and so, so that is the role that technology plays technology accelerates and enables, and digital business transformation, you cannot do it without it**. But it is not it is not the primary role of technology to do that. And that is why the **wide organizational change in ownership is so important because it is people, systems, process enabled and empowered, and even transformed by new digital technology capabilities.**

Researcher 30:37

Why, what digital technologies does your organization have? And what are they used for? If you can just think of a few in the organization?

Tendani 30:50
Sorry, you're just broke up again?

Researcher 30:52
Or what digital technologies does your organization have? And what are they used for? If you can just mention a few.

Tendani 31:02
Sorry, I didn't hear the whole question.

Researcher 31:05
What digital technologies say if you think in the organization, what key digital technologies do they have? And what are they used for?

Tendani 31:16
Okay, so that's it's a really complex question, right? Because what is the you know, I think people have different definitions about what digital technology is in the first place. And I think it's fair to say a **digital technology probably is actually more a collection of tools, technologies that you can bring together.** And when you bring them together, you're creating a tool sets as such**, that enables that just transformation**. So if you look at what are typically what would make up that kind of **tool sets that** that **makes it digital technology, or digital tool is typically the ability to deliver a user experience, visually and process orientated, that is superior, and is intuitive.** So a lot a lot of time when you do a process, when you get onto the website, now as simple as where your eye naturally goes, you know, if something is intuitive, that makes it seamless for you, without you as a user having to think about it. So when you can make that easy for the user and a good experience that's important. **There could be things like UX tools, it could be things like workflow**. Also, I think **you want to take away unnecessary decision making for customers.** And so whether **it's AI**, whether it's understanding patterns, and logics around what a customer typically would choose, you're making those things easy for them. And so when you start looking at digital tools, there are so many really, **low code no code platforms, that ultimately makes it easier for a developer or systems analyst or process engineer to build a process.** And if you use those components that enable the organization with knowledge that you've already infused in the back end, you can start playing the host to a superior customer experience. So I think having, having at the base level, **having integration technologies**, having workflow technologies, and **having the knowledge and experience to understand, how do you create a good digital online experience understanding people's behaviors that's really important**. At the very basic level, there are many other advanced technologies that you can use. If you're looking at the retail space, **the physical retail space, understanding the behavior of the customer in the store, understanding, you know what the customer is looking at, what they're picking up, what they're putting back down, it's really around the analytics that you need to understand how can you create a data points out of every customer interaction, out of every employee interaction.** And if you've got the tools to then turn that into an insight of how you would experiences that, you know, those are the types of tools and technologies that you need to look at?

Researcher 34:12
You mentioned quite a number of tools. Which of these does your organization have?

Tendani 34:23

Sorry, you broke up again.

Tendani 34:24
You mentioned quite a number of tools that come together to create a digital deliver a visual experience for the customer. Which of this does your organization have?

Researcher 34:51
Do you still hear me Tendani?

Researcher 35:02
Tendani?

Tendani 35:05
Sorry, I'll be back.

Researcher 35:08
No problem.

Tendani 35:10
Here we go. Perfect. Yes.
Researcher 35:14
Can I repeat the past question?

Tendani 35:17
Thank you.

Researcher 35:20
Okay. You mentioned quite a number of digital tools, which when they come together, they can create deliver the visual customer experience. You mentioned, when you started off, which of this does your organization have.

Tendani 35:35
So I think in [redacted] we've got many of these, the challenge of [redacted] has been the centralization of multiple brands into one. But certainly, **understanding workflows, and the selling process is a big focus**. And then I think also using tools like **digital composable platforms, where you can build once and reuse many times**, that's a big focus for [redacted]. And then **being able to integrate between the different technologies like the e-Commerce technologies, the core technologies, that's always been also been a big focus.** So your **integration layer, and composable tools that you can, that makes it easy to quickly build, even if you don't have deep technical knowledge, is really a big focus** on myself.

Researcher 36:20
Thank you. So if we think about this areas, from a digital tools perspective that you have discussed, which parts of the organization would need to transform?

Tendani 36:38
Um, well, you know, it's actually you see it **across the line, because the because the employee experience ultimately impacts the customer experience, we are seeing it everywhere**. I think that the leaders in this

space, the people who have to support organizations, so leadership is **the technology teams**, they ultimately, **whether you're supporting an HR function, or whether you're supporting a store function, you need to lead that**. **But the impact is everywhere.** In fact, and this is **the thing with digital business transformation,** right, **it's not technology, it's the understanding of where you are, use technology effectively.** And in **from an organizational perspective, if you're deploying a tool into a retail store, or getting that feedback from associates, using that tool, getting the feedback from a customer, so that you can update it to change the way that it works, is really what's important.** So it impacts everybody, but I think this is the **role of a technology team is to truly play the thought leader.**

Researcher 37:44
Tendani, your voice has disappeared.

Tendani 37:50
So I think so, technology teams have **to play a leadership role, but not just in the technology, understanding the business process, the customer experience, that it needs to be enabled, and then the associates and customers is where we need to get the feedback in terms of how do you rapidly improve and adapt to the needs.**

Researcher 38:14
Thank you, very well-articulated in terms of the key impact and technology and the role that they must play in terms of becoming thought leaders. Anything you'd like to add on the role of technology as an enabler for dt?

Tendani 38:32
Um, I think **that the biggest honest understanding across organization is that technology is an enabler. It is not DT in itself. I think that's part of the mindset, it just needs to be understood.**

Researcher 38:46
We'll move on to digital workplace skills. Please explain whether you believe workplace skills plays a key role in DT.

Tendani 39:00
I think the answer is always going to be **yes**. **But I think the bigger impact is actually the mindset**. **So the mindsets understand that you're constantly going to have to develop digital skills, that it is a constant personal growth journey.** And that's why early on, as I said, **the learning mindset, the growth mindset is important.** And so I think from that perspective, is **it's more the mindset and a willingness to learn, because digital skills themselves are ever changing.** I do think there's also perhaps not if you look at the time it takes from school through tertiary education, to the time you land in your career, and then the time you spend in your career, I think what organizations can do better or is making people aware of what our new digital careers, what are new digital skills. **So one of the things that I personally think we've got a huge shortage and just understanding** nevermind the skills is **understanding how you design, good customer experience, how do you design,** digital **digital interface to deliver good user experience, and the technologies and the skills that are that are that are available for you to learn.** But at the foundation, I think **the true digital skills is having human skills, having empathy, understanding the customer, understanding the customer experience, understanding the social, social experience, the vendor, and how those things come back as an ecosystem.** So I think the awareness of that needs to have an empathy to be able to put yourself in somebody else's shoes, then leads to a okay, how can I learn to do that better? That then leads to

what skills do I need to learn? And that can they need a tag in your career? **In this workspace I think that it's more of a lifecycle approach to skills and just looking at a list of skills that are needed.**

Researcher 41:05
Does your workforce have the digital skills required for DT?

Tendani 41:15
I was gonna say **yes, because I think we all live in a digital world.** And we may not have, you may not everybody have even have running water or power in our homes but we all have mobile phones. **And the minute you have a mobile phone, your digital citizen in this world.** So I think if you can, if you can put yourself in that position, **then everybody has a foundational skill. So the real issue really becomes around what are the specific skills that an organization has a lack of, and then go to find those skills, or learning ourselves.** And that's when we come back to the to the growth mindset. So it's **more about a willingness and awareness of what is possible, and then exploring that, going to want to find new ways of doing that is the primary skill.** I think in [redacted] there is a lot of that. And what makes [redacted] and retail in general, a really interesting place to work, compared to a tech company that we always working in more of a online space is that we have such a wide variety of personas, you could somebody in a date in a distribution centre driving forklift, who has to interact with technology, you have somebody packing shelves in a store, you got somebody who has to assist a customer, you've got a manager sitting in the back office, you've got home office employees. So **we've got such a wide array range of personas, that some way the skill exists, or somewhere the challenge exists that you can learn from. So I think that's that's one of the great benefits in DT that retailers have if they leverage the associates and understand the inherent skills that actually come with that inherent understanding,** then saying, I can learn more is a very simple step up, because you're actually understand the problem because you've got somebody who's living that problem.

Researcher 43:06
My next question is, how would you define the level of skills in the organization? And I think you've answered it when you say, really **everyone has the skills, what is required is the mindset change, to evolve in more in the digital world.**

Tendani 43:25
That summarizes it perfectly. Because the risk is if you for me, it's if we don't take that approach. If you simply go online to learn your skills, you actually don't know how to deploy and use and apply those skills to coming from a place of experience and curiosity to solve a problem. And then learning a skill in an environment where things are ever changing is a much more efficient and effective approach.

Researcher 43:53
Are the digital skills sufficient for a DT journey?

Tendani 44:01
Again, I think **it's not the skills itself**, it's the adapt, **the biggest skill that you actually need is adaptability**. Because you can even bring in people some core skills, **the demand for skills and resources who you understand the digital world far outstrips the supply**. So **having some people who have examples of good skills or experiences you can share those is more important than the skills itself**. It's, again comes **back to how quickly can you drive the change, the willingness to learn to adapt, and to learn from own experiences, not just from a textbook, not just from a tool as an example.**

Researcher 44:50
You talked about that it is not the skills that are important, but the adaptability does your organization have this adaptability.

Tendani 45:04
I think adaptability and change fatigue is always a challenge. I think inherently people are very resilient. And so I think, again, **it comes back to the leadership,** number one, and **then it comes back to, are we providing the most effective learning tools and learning environments.** And I think that's a challenge for most organizations and I think certainly it's a **challenge for** [redacted] **at the moment is to, to adapt as quickly in, in how you enable and grow as it is adapting in the customer interfaces.**

Researcher 45:39
And what interventions are being taken to close this gap?

Tendani 45:45
I think what [redacted] done really well is **through leadership from the tech organization have really created a lot of visibility around digital mindset, data driven decisions,** you know. **Exposure to the business with townhalls, with expos, showing the art of the possible has been**, you know, those what it's **all about that thought leadership**, I think what, what you can do **in addition to that is drive more identity around personal digital identity**. So and this understanding, **helping people realize and break down those barriers** that got digital, you know. **You often hear people say, I was born before technology, right. No, actually you just a digital nomad, right, and that generation has certain learnings. Then you get our digital natives, right, people who are born with pervasive technology. And understanding those challenges that people have got and how you actually help them overcome that themselves to empower themselves to feel the confidence. I think that's that's something that** [redacted] **is looking at.** But it's really essential for organizations to to address this challenge.

Researcher 47:04
Thank you. Anything else you'd like to add? I think you actually covered quite a lot.

Tendani 47:10
I think I've covered everything.

Researcher 47:12
Thank you. The last section is on workplace culture. Please explain whether you believe workplace culture plays a role in DT.

Tendani 47:26
I think **workplace culture is probably one of the biggest components**. One of the one of the things is, **when you're dealing with a lot of change, when you're dealing with a lot of trying to explore new solutions, which is inherent to the digital world, you have to have, you have to have a lot of psychological safety. You have to create a culture where challenging, is acceptable and encouraged and actually expected. You have to create a place where there is no fear of failure.** One of the things that [redacted] does really well is before new version of safe [redacted] software is released, the development team has to fail 50 times failure is a goal, it is a target it is celebrated. **Because through failure you learn** and one of my favorite quotes is also always saying you only have to get every second decision right to make project progress, fail ones learn, make a better decision, fail again, learn make a better decision. **If you don't create that psychological safety, that**

aspiration to fail fast and quickly and celebrate your failures, you create, you drive a paralysis, then no decisions are made, no progress is made. So the culture from that aspect is is crucial, even if you just look at it from that single aspect of failure and safety.

Researcher 48:51
How would you define the workplace culture in your organization?

Respondent 48:57
I think [redacted] **due to a lot of change and uncertainty with centralized organization,** you know, as [redacted] ownership changing and etcetera, I do think **there's a lot of uncertainty**. And so what happens is **naturally people look to leadership.** And, and so **there's a tendency to default to authority, rather than a tendency to participate, take ownership and challenge authority. And that's not necessarily because the leadership doesn't encourage it. it's just part of this change that happens when there's a lot of uncertainty. So it goes back to the previous answer, right and creating psychological safety, encouraging it and doing that consciously.** And so the one thing I might add to that is, and this is not this is not specific to DT, this is the most corporate organizations, we have values, teamwork, respect all those things. And they are often related, but if presented as aspirational values. **So one of the things that I think is important is to say, what behaviors show respect? What behaviors show innovation? And what behaviors do not. So instead of saying, we want to be innovative say, we explore new options.** That's a positive behavior. **We are not reckless is, we can play with, we can play with failure, but be we are not irresponsible. So driving value through to behaviors, I think is important.** In this in this kind of challenging space.

Researcher 50:35
With this description of the workplace culture, do you believe it's conducive for DT?

Tendani 50:49
I think if you don't implement **if you don't encourage these behaviors, definitely will be challenging because by nature, you're going to be stifling innovation. You're going to be stifling insights versus process adherence.** So I think **it is absolutely essential, that psychological safety, to create a space where people can have a growth mindset where they can question where they are willing to put themselves out there to leapfrog without a fear of failure is absolutely essential. If you don't have it, it will inhibits DT.**

Speaker 51:27
What interventions are being taken to turn around this workplace culture, given the challenges that the environment finds itself in?

Tendani 51:41
I think, you know, the **one thing that's important is clarity**. So **there's a lot of communication and alignment to clear goals and outcomes.** I think that's important. Everybody does need to understand what the goal is in the direction we're going in. **Once that is clear that you know, you're almost giving people permission to question and challenge when something's not clear, or when an action or behavior or decision goes counter to that**. So I think that's important. **Encouraging people to be evidence based, explain and to use metrics and measures to to, to articulate that is quite important**. So I think **that that is all happening** at [redacted]. And then I think there's also the idea that, even though you may have some very strategic objectives that feel quite laborsome and take long to do, **there are also investments and in key areas where there's innovation happening. Where we trying new things, and they their failure and the celebration of of ideas and ideation is really important that brings that creative, joyous energy into an**

organization. And [redacted] is doing both; It's the clarity, as well as the play that is coming into it **and that ultimately creates a good foundation for for creating new culture.**

Researcher 53:02
You mentioned investments in key areas would you make, can you mention one or two of this?
Tendani 53:09
Well, **if you look at the more the more strategic space, there's a lot of investments in changing the way [redacted], that in itself is improvement and innovation, but it's large pieces of innovation. And then we've also got other aspects of where we are trying to improve a client experience in one single process in a single banner. But the way that it's acknowledged is being used and invested in is new technology that enables replication or that once a successful very quickly across other areas of business. And then we're components of that process can be reused in other processes, because kind of a seed that's planted versus the big transformation in which little seeds are used along the way. And so I think that that big and small consummation is a good way of doing that.**

Researcher 53:58
Is there anything you'd like to add regarding the role of web please culture in DT?

Tendani 54:05
And I think I'm good.

Appendix D – Ethics clearance

UNIVERSITY OF THE WITWATERSRAND JOHANNESBURG

SCHOOL OF BUSINESS SCIENCES ETHICS COMMITTEE
CONSTITUTED UNDER THE UNIVERSITY HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER: CBUSE2056**
PROJECT TITLE	Understanding successful implementation of Digital Transformation in a South African retail organization.
INVESTIGATOR	Tshisevhe Nnzeru
SCHOOL/DEPARTMENT OF INVESTIGATOR	School of Business Sciences
DATE CONSIDERED	18 October 2022
DECISION OF THE COMMITTEE	Approved Unconditionally
RISK LEVEL	Minimal Risk
EXPIRY DATE	31 December 2025

ISSUE DATE OF CERTIFICATE 03 November 2022 **CHAIRPERSON** _____ (Neetu Ramsaroop)

cc: Supervisor: Dr Suzanne Sacksteln

DECLARATION OF INVESTIGATOR

To be completed in duplicate and **ONE COPY** returned to the Chairperson of the School/Department ethics committee.

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

Tshisevhe Nnzeru _____ 08 / 11 / 2022
Signature **Date**

PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES