

**The influence of dedicated institutional investors on digital transformation strategic
decision-making**

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A research project submitted to the Gordon Institute of Business Science,
University of Pretoria, in partial fulfilment of the requirements for the degree of
Master of Philosophy (Corporate Strategy).

28 November 2022

ABSTRACT

The business South Africa Incorporated (SA INC) has seen an evolution in leveraging technology to remain competitive, through competitiveness the businesses are able to redefine themselves and invest in operating better and remain competitive, one of the ways to do this through digital transformation has become the way in which business can themselves. The study aimed at understanding the phenomenon undertook a path of understanding the behaviour of the companies and through the concept of dynamic capacities and the extent to which value can be created through adopting digital transformation in investee companies. This study explored and adopted an exploratory, qualitative research design, the data was gathered from 15 semi structured interviews with companies that are theme investees and experts in the field also referred to as investors of SA Inc. Three various components (1) Digital transformation, and how this relates to (2) decision making and lastly how (3) institutional investors can help drive how these companies can reinvent themselves for new revenues and competitiveness to gain or retain market share. The research outcomes seemed to have suggestions for managers that, although digital transformation is well understood and so are its benefits to business should focus change management for its customers, employees the type of skills they hire to further enhance digital transformation and get scaling and efficiencies through it.

KEY WORDS

Digital Transformation, Institutional investors, decision making

Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Philosophy in Corporate Strategy at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

Name & Surname

Signature

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Chapter 1: Introduction

1. Introduction

This chapter focuses on defining the research problem and the purpose of the research. This is achieved by setting out the relevance of the research from a business perspective, its theoretical relevance, the purpose and aim of the study, and the expected contribution of this research to scholarly research.

1.1. Background to the research problem

The research topic seeks to explore how the commitment of dedicated institutional investors influence the digital transformation strategic decision-making process. This section sets out the business relevance of the research topic by discussing the following:

- (i) The importance of the decision-making process of a digital transformation strategy; and
- (ii) Leveraging dedicated institutional investor ownership for value creation.

1.1.1. The importance of a digital transformation strategy decision-making process

The business landscape has become more competitive over time (Manyika & Tuin, 2020; Perrin & Ronte, 2020). The intensification of competition is attributable to various factors including globalisation, the emergence of new industries, changing consumer behaviours, and technological changes (Manyika & Tuin, 2020; Perrin & Ronte, 2020).

Given the heightened competition, it is increasingly more important for organisations to develop and maintain a sustainable competitive advantage and create value. There are various avenues that a firm can rely on for value creation. Digital transformation is currently one of the most notable sources of value creation across various sectors and business sizes (Alstynne & Parker, 2021; Ghosh & Gopolakrishnan, 2021). An overview of digital transformation and its aspect that are relevant for the proposed research and for business are set out below.

The rising importance of digital transformation is evident in its annual global spend which grew from USD0.96 trillion in 2017 to USD1.18 trillion in 2019 (Statista, 2022), representing a two-year compound annual growth rate (CAGR) of 10.8%. The Covid-19 pandemic resulted in faster growth due to an acceleration of digital transformation initiatives. The annual digital transformation global spend is forecast to grow by 17.6% from USD1.53 trillion in 2021 to USD1.8 trillion in 2022 (International Data Corporation,

2022). The International Data Corporation (2022) expects the high growth to continue with a forecast five-year compound annual growth rate to 2025 of 16.6%.

A few definitions explaining digital transformation exist; however Vial (2019) found that most of them lack clarity and are circular. He proposes the following definition which seems to be more concise, direct and not ambiguous: “a process wherein organisations respond to changes taking place in their environment by using digital technologies to alter their value creation” (Vial, 2019, p.119). Hanelt et al. (2021) reinforce the notion of digital transformation being information technology (IT) enabled changes in the organisation for value creation. They define digital transformation as business transformation that is fuelled by digital technologies (Hanelt et al., 2021).

From the digital transformation definitions above, two key points emerge:

- First, the primary goal of digital transformation is not to become digital, but rather value creation for the business. Given the importance of value creation for a firm’s competitive strategy, digital transformation is thus crucial for a firm’s competitive strategy (LaBerge et al., 2020; Lamarre et al., 2021; Nanda et al., 2021; Tabrizi et al., 2019). Firms that do not implement digital transformation strategies may risk becoming extinct (Bratel et al., 2022; Denning, 2021).
- Second, digital transformation necessitates organisational change. One can thus infer that effective and successful organisational change is a prerequisite for successful digital transformation. Bratel et al. (2022), Norman (2020) and Padmanabhan et al. (2019) all emphasise the importance of embracing organisational change for successful digital transformation. Furthermore, the success statistics of digital transformation initiatives are alarming as more than 70% of historical digital transformation initiatives were unsuccessful due to resistance to change (Denning, 2021; Norman, 2020) and ineffective decision-making processes (Block, 2022; Daskal, 2022). In addition, Stouten et al., (2018) found that effective decision-making is required to achieve effective and successful organisational change. The high failure rate of digital transformation initiatives and the reasons thereof suggest that the digital transformation strategy decision-making process and how it can be leveraged for success is not well understood by businesses.

From the above two key points, one can thus conclude that the decision-making process of a digital transformation strategy is crucial for a firm’s competitive strategy. Shedding more light on the process will benefit business.

1.1.2. Leveraging dedicated institutional investor ownership for value creation

Alstynne & Parker (2021) found that digital transformation has changed where and how firms create value. They also found that value creation is increasingly coming more from external partners outside the organisation compared to internal employees. This suggests that shareholders of a company could potentially contribute to the value creation process of their investee companies.

For the proposed research, the researcher is particularly interested in the contribution of a specific type of investor, dedicated institutional investors due to certain innate characteristics that may be leveraged for value creation. A dedicated institutional investor can be defined as an institutional investor with the following investing traits: long-term oriented (Harford et al., 2018), holds concentrated investment portfolios with a significant shareholding in each investee firm, have access to more private firm information, invest significant time and resources to process and understand complex business information and are independent of short-term capital market pressure to boost short term earnings (Oehmichen et al., 2021). The different types of institutional investors are discussed in the literature review in Section 2.1.2.1.

Leveraging company ownership for value creation and the resultant competitive advantage is an important but often overlooked element of business (Baron, 2019). The proposed research is relevant for business as it will explore how ownership in the form of dedicated institutional investor ownership can be leveraged to influence the decision-making process of a digital transformation strategy (which is a source of value creation).

1.2. Problem statement and research aim

Eisenhardt & Zbaracki (1992) define a strategic decision as being of strategic importance in terms of the decisions made, resources invested, or examples established by an organization. Strategic decisions are cornerstones for the direction of an organisation (Pye & Pettigrew, 2005; Vuori & Huy, 2022), are central to a firm's competitive position (Kauppila et al., 2018), are aimed at improving the long-term performance of a company (Vuori & Huy, 2022) and have a material influence on a firm's processes, structure and business model (Liu et al., 2021). It can be concluded from the above definitions that a digital transformation decision is a strategic decision as it requires digital technology and human resource commitment (Hanelt et al., 2021), and it affects a firm's strategic direction, processes and competitive position through information technology (IT) enabled value creation (Vial, 2019).

Despite the strategic benefits of digital transformation many organisations either fail to achieve their digital transformation strategic objectives or are reluctant to pursue a digital transformation strategy (Block, 2022; Daskal, 2022; Denning, 2021; Norman, 2020). Only three percent of companies in the world have adopted digital transformation successfully, even though 84% of global organisations regard digital transformation as a business imperative (Chaniyas et al., 2019; Kohli & Melville, 2019). This reluctance and failure to succeed are attributable amongst other reasons to poor decision-making (Block, 2022; Daskal, 2022). With digital transformation involving many key decisions (Lydon, 2022), the adverse impact of poor decision-making is exacerbated.

Similar to other organisational processes, digital transformation strategy decision-making processes do not operate in a vacuum, they are affected by context (Pye & Pettigrew, 2005; Vuori & Huy, 2022). Contextual factors that inhibit or enable decision-making processes in general and which could affect the digital transformation strategy decision-making process include the decision makers risk tolerance for uncertainty in outcomes (Carson et al., 2022; Dong, 2021; Kannan-Narasimhan & Lawrence, 2018; Vial, 2019), motivational factors (Banerjee & Homroy, 2018; Benischke et al., 2019; Choi et al., 2021; Samimi et al., 2020), and cognitive abilities, as well as the organisational politics, and chance (Eisenhardt & Zbaracki, 1992; Vuori & Huy, 2022). In addition, empirical studies have found that some of these behavioural and psychological factors can originate from selected individual or group key decision makers (Akinci & Sadler-Smith, 2019; Vuori & Huy, 2022). An understanding of these key inhibitors and drivers, as well as their impact on the decision-making process will be crucial for exploring how these factors can be influenced by dedicated institutional investors to improve the effectiveness of the digital transformation strategy decision-making process.

A survey of literature in Chapter 2 showed that there is extensive literature on strategic decision-making, and growing academic literature and empirical research studies on: the role of ownership in strategic management; the impact of the relationship between firm managers and owners on firm strategy and resultant firm performance (Oehmichen et al., 2021); and strategic implications of rising digital transformation (Hanelt et al., 2021). There is however a theoretical gap in knowledge on the interaction of these above-mentioned topics of corporate strategy. Oehmichen et al. (2021) extend an invitation to scholars to contribute to knowledge by investigating “whether the commitment of dedicated institutional investors [influences] CEOs to favour critical strategic decisions with uncertain outcomes and long-term horizons which tackle grand challenges such as

climate change and digital transformation” (p. 1102). This invitation forms an anchor to the theoretical research problem to be addressed in this study.

The research was aimed at responding to this invitation by exploring how dedicated institutional investors influence key decision makers to pursue a digital transformation strategy with uncertain outcomes. The research focused on key decision makers versus the CEO in the anchor invitation as key digital transformation decisions in some organisations are made by a team of key decision makers (e.g. chief information officer, CEO and/or other TMT members) and not by solely the CEO (Chin et al., 2021; Liu et al., 2021). Given the time limitation for completing this research project, the research study was limited to the digital transformation grand challenge.

1.3. Purpose statement

The purpose of this study was to explore the role of the commitment of dedicated institutional investors on influencing the key decision makers of investee firms to choose long-term digital transformation strategic decisions with uncertain outcomes.

1.4. The research questions

The research problem and purpose statement thus led the researcher to the following primary research question: What role does the commitment of dedicated institutional investors play in empowering key decision makers of investee firms to pursue long-term digital transformation strategic decisions with uncertain outcomes?

Sub-ordinate questions that emerged from the literature review and were used to refine the primary research question are summarised below. The rationale for each sub-question is presented in Chapter 3 of this research proposal.

- Research sub-question 1: Why do investee companies pursue digital transformation?
- Research sub-question 2: What factors influence the key decision makers during the digital transformation decision-making process?
- Research sub-question 3: How can dedicated institutional investors assist investee companies to pursue digital transformation?

1.5. The research contribution

The proposed research will contribute to the following areas:

- Business by shedding some light on how an investee firm may leverage its ownership by a dedicated investor to enhance the effectiveness of its strategic decision-making for digital transformation.

- Strategic management literature by adding to research on the impact of ownership on digital transformation strategy decision-making.

1.6. The research scope

The scope of the study was limited to the decision-making process specifically for digital transformation strategic decisions in selected South African investee companies that are owned by dedicated institutional investors. The focus was on exploring the influence of the dedicated institutional investor on this decision-making process. This was done through exploratory in-depth interviews with key decision makers of investee firms. To corroborate findings, dedicated institutional investor representatives and a digital technology expert were interviewed.

1.7. Roadmap for the research report

The research report is arranged into the following chapters:

- Chapter 1 provides the background to the research and sets out the research problem, the research aim, purpose statement, the primary research question, expected contribution to business and academic literature, and the research scope.
- Chapter 2 presents a literature review of the three constructs being digital transformation; institutional investors; and the strategic decision-making process. The theoretical research gap is derived from the literature review.
- Chapter 3 sets out the primary research question and sub-ordinate research questions that will address the research problem.
- Chapter 4 presents the research methodology and research design.
- Chapter 5 presents the findings of this qualitative research study
- Chapter 6 presents a discussion of the findings of this research study in relation to the literature on the constructs.
- Chapter 7 Provides a conclusion to the study and offers recommendations emanating from the research findings.

Figure 1: Research Contribution



Chapter 2: Literature Review

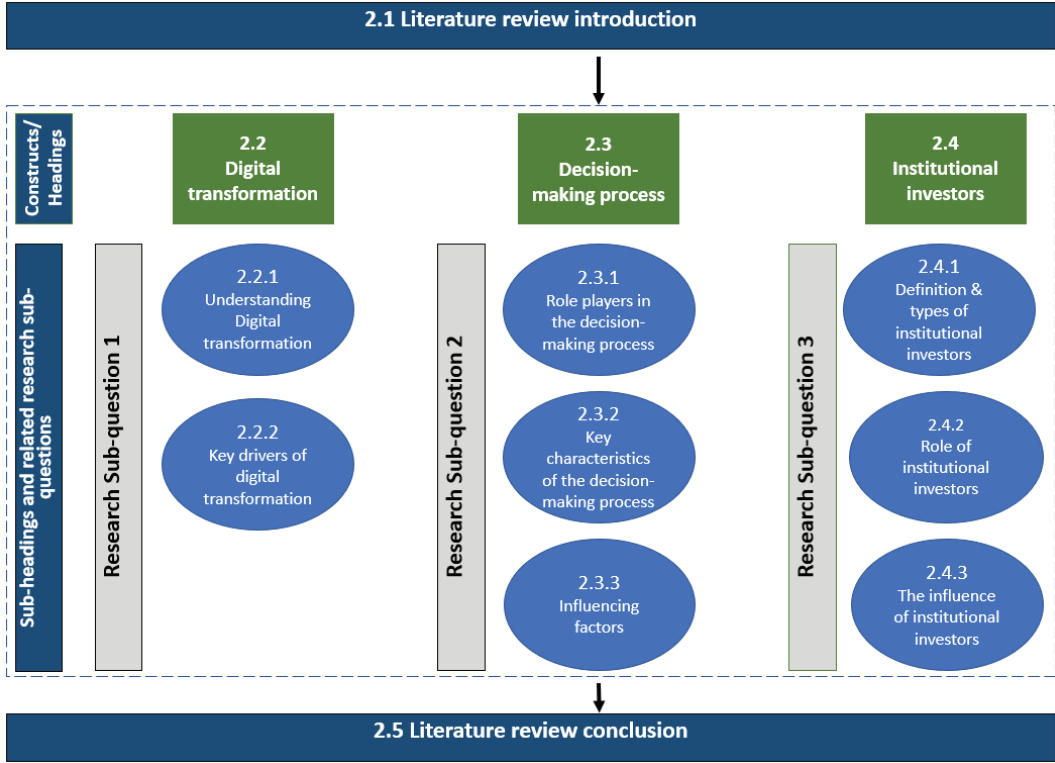
2. Literature review

2.1. Introduction

This section shows a synthesis of current and previous academic literature on the three constructs embedded in the research question: digital transformation; institutional investors; and the strategic decision-making process. The researcher considers institutional investors as the construct instead of dedicated institutional investors because an understanding of how dedicated institutional investors differ from the other types of institutional investors plays an important role in this research study. The constructs span multiple management disciplines. The literature was thus sourced from peer-reviewed, highly rated academic journals in mainly the following study fields: strategic management, corporate finance, information management studies, and organisational change.

Below is a diagrammatic roadmap of this literature review chapter that shows headings, sub-headings, and the related research questions. Sub-headings consist of the literature review introduction, research constructs and the literature review conclusion.

Figure 2: Literature Review



2.2. Digital transformation

2.2.1. Understanding digital transformation

This section begins with the digital transformation construct as it is the context for this study. Despite being extensive and its recent exponential growth, the literature on the digital transformation phenomenon is largely fragmented (Hanelt et al., 2021; Vial, 2019). Furthermore, in their multi-disciplinary study, Verhoef et al. (2021) highlighted that prior academic literature concentrated on specific business functions. This presents a challenge as extant literature illustrates that digital transformation is a cross-functional process and is not confined the information technology (IT) department (Chanas et al., 2019; Hanelt et al., 2021). Through literature review studies Hanelt et al. (2021) and Vial (2019) have begun to consolidate and synthesise digital transformation literature.

Given their connection to digital transformation, the extensive literature on organisational change and IT innovation can be leveraged to advance academic knowledge of digital transformation, albeit with some limitations, (Hanelt et al., 2021). One of the limitations of innovation studies as noted by Kohli and Melville (2019) is the lack of unification. A similar observation was noted by Stouten et al. (2018) for organisational change literature despite it dating as far back as the 1940s when the term was first coined by

Kurt Lewin. Given the fragmentation of literature across these three disciplines, it is important to apply rigour to data that will be leveraged from these disciplines.

A few definitions explaining digital transformation exist; however, Vial (2019) found that most of them lack clarity and are circular. He proposes the following definition which seems to be more concise, direct and not ambiguous: “a process wherein organisations respond to changes taking place in their environment by using digital technologies to alter their value creation process.” (Vial, 2019, p.119). Vial (2019) further adds that for this process to be successful, companies “must implement structural changes and overcome [organisational] barriers that hinder their transformation effort” (p. 122). Hanelt et al. (2021) reinforce the notion of digital transformation being information technology (IT) enabled changes in the organisation for value creation. They define digital transformation as: “organisational change that is triggered and shaped by the wide-spread diffusion of digital technologies” (Hanelt et al., 2021, p. 1160). Both Vial (2019) and Hanelt et al. (2021) regard digital transformation as a multi-disciplinary process. While some elements of the two definitions are similar, the divergence relates to Vial’s (2019) definition which implies that value creation is the goal of digital transformation, whereas Hanelt et al.’s (2021) definition focuses on the organisational change aspect of digital transformation.

The disparity in definitions and the importance of academic literature to be unified is further highlighted in Verhoef et al.’s (2021) study which regards digital transformation as a three phased process comprising of digitisation, digitalisation, and digital transformation. Digitisation refers to the use conversion of analogue paper-based processes to digital, without any value created. Digitalisation describes the application of a digital technology to a process and simultaneously generating value through cost savings and improved consumer experience. The final stage which is digital transformation entails digitalisation of processes across the organisation to create value. The final stage can result in the creation of new business models and is similar to Vial’s (2019) definition.

Differences in Vial (2019), Hanelt et al. (2021) and Verhoef et al.’s (2021) definitions have been highlighted and these are only three among a myriad of definitions. Based on this, one would expect that the different definitions could result in different understandings of the term digital transformation by investee companies. This leads to

research sub-question 1(a): What do investee companies understand by the term digital transformation?

To shed more light on the notion of digital transformation, the digital transformation literature below focuses on the key components of digital transformation as per Vial's (2019) definition, which is the most comprehensive. We focus on environmental changes, organisational change, value creation, implication for strategy and key drivers of this process.

2.2.1.1. Rapid environmental changes and the role of technology

Although digital transformation literature is fragmented, vast literature shows that there is a common understanding on digital disruption being the primary trigger of digital transformation (Hanelt et al., 2021; Teece et al., 2016; Verhoef et al., 2021; Vial, 2019). This digital disruption is attributable primarily to an increasing utilisation of digital technologies, increased availability of data, intensifying competitive markets and changing consumer demands (Hanelt et al., 2021; Teece et al., 2016; Verhoef et al., 2021; Vial, 2019). The changing consumer behaviour and changing competitive landscape are underpinned by changes in digital technologies (Verhoef et al., 2021).

Digital technologies include big data analytics, sensors, (Günther et al., 2017), social media, mobile technology, cloud computing, and the internet of things (Hanelt et al., 2021; Magistretti et al., 2021; Verhoef et al., 2021). To the researcher's best knowledge, literature rarely includes the internet, software, block chain Vial, (2019) and ecommerce (Li et al., 2018) in the definition of digital technologies. The type and combination of digital technologies is of importance as it determines the capabilities of the digital ecosystem.

Digital technologies play two important roles in the digital transformation process. In addition to fuelling digital disruption, digital technologies also underpin the digital ecosystem which produces insights that are used by organisations for decision-making, a concept known as algorithmic decision-making (Hanelt et al., 2021; Tabrizi et al., 2019; Verhoef et al., 2021). Technology should not be confused to be the primary goal of digital transformation as it is an enabler (Chanias et al., 2019; Tabrizi et al., 2019; Vial, 2019). Loosely put, it is a means to an end. The primary objective of digital transformation is to enable value creation (Vial, 2019).

In sum, digital transformation is fueled by digital technologies. These digital technologies are also an enabler as they are used to respond to the changes in the environment that

organisations operate in. The implication for this study is that investee companies operate in a rapidly changing environment.

2.2.1.2. Organisational change

Understanding organisational change in the context of digital transformation is critical as structural changes need to be made to effectuate digital transformation (Hanelt et al., 2021) as change is inevitable and an ongoing process (Appelbaum et al., 2012). Furthermore, Vial (2019) emphasised that there are obstacles that impede digital transformation which organisations must overcome. In the sections below, we consider the benefits and impediments to organisational change within the context of digital transformation.

Organisational agility

According to Hanelt et al.'s (2021) study, one of the benefits of digital transformation is that it results in a move towards flexible and dynamic organisational designs that can adapt to a rapidly changing environment. Based on Teece et al.'s (2016) definition of organisational agility, digital transformation enabled flexibility constitutes organisational agility. Organisational agility is "the capacity of an organization to efficiently and effectively redeploy or redirect its resources to value creating and value protecting (and capturing) higher-yield activities as internal and external circumstances warrant" (Teece et al., 2016, p.17).

Although the phenomenon of technology enabled flexibility is not new in the broader information technology literature (Vial, 2019), the key difference with digital technology enabled organisational design flexibility and adaptability is not confined to the software industries (Hanelt et al., 2021). Some scholars however note that the dynamism of incumbent non-digital organisations is somewhat limited compared to digital companies as they need to incorporate the digital changes into their core incumbent businesses (Hanelt et al., 2021; Teece et al., 2016). The traditional hierarchical organisation structures can be an impediment to organisational agility as they limit the flow and quality of information, thus reducing collaboration (Chanas et al., 2019; Günther et al., 2017) and the ability for organisations to sense changes in the environment timeously and adapt quickly (Verhoef et al., 2021; Vial, 2019). Furthermore, close communication is regarded as a key success factor in cross-functional projects as it helps improve stakeholder buy-in (Günther et al., 2017).

Solutions to address the shortcomings of the traditional organisational structure that are proposed by scholars include decentralisation (Teece et al., 2016), establishing a separate autonomous digital business unit that drives digital transformation (Verhoef et al., 2021; Vial, 2019), and a transition of the traditional IT department into a more strategic department that enables digital transformation (Verhoef et al., 2021). Opponents to a decentralised structure state that it results in higher governance costs and risks (Günther et al., 2017). In addition, academic literature shows that the debate on the centralising of computing traces back to the 1970s (Günther et al., 2017; King, 1983). Some of the early scholars stated that the debate is likely to continue into the future because it stems from issues of organisational control and thus cannot be solved by changes in technology (Günther et al., 2017; King, 1983).

Teece et al. (2016) cautions that organisational agility is context specific and has a cost associated with it, which are two features of organisational agility that have been historically understudied by scholars. They posit that organisations must continuously make a strategic tradeoff between the flexibility offered by organisational agility and the cost saving that could be achieved by not pursuing the agility. This trade off is more pronounced in a digital transformation environment with high uncertainty. This is echoed by Vial (2019) who cited companies whose ability to utilise digital technologies were hampered by funding constraints. Chanas et al. (2019) further noted the importance of prioritising initiatives.

Other impediments to organisational change

Despite the widely document benefit of organisational agility, most companies have difficulties in implementing sustainable organisational change with only three percent of companies in the world that have adopted digital transformation successfully, even though 84% of global organisations regard digital transformation as a business imperative (Chanas et al., 2019; Kohli & Melville, 2019). Although adoption remains low, according to Hanelt et al., (2021), COVID-19 has accelerated the adoption rate of digital transformation. Adoption does however vary by company size and industry (Verhoef et al., 2021).

The low success rate is not limited to digital transformation change initiatives. General change initiatives have a failure rate of 30% to 80% (Stouten et al., 2018). In addition to a low success rate, scholars have documented various reasons for people's resistance to change including fear of change, concern about loss of employment, stubbornness, misunderstanding of the need for change, and vested interests as being among the

obstacles to organisational transformation (Hussain et al., 2018; Teece et al., 2016). In addition, thousands of employees have been diagnosed with organisational change induced stress (Stouten et al., 2018). Tabrizi et al. (2019) share the same sentiments and further stated that existing operational process and human challenges will be magnified by digital transformation if they are not addressed.

Despite change management literature dating as far back as 1940, Stouten et al., (2018) argue that improving the success rate of organisational change projects remains challenging mainly due to fragmented change management literature, the lack of scientific evidence in the most commonly used change management models, and variation in change making it challenging to adapt to change. In their study which sought to synthesise academic literature on change management they showed that what was common across all seven models was the importance of the assessment of the opportunity prior to implementing change. The implementation processes differed across the different models, albeit that there were similarities in some of the models. Some of the key themes across most models include formulation and communication of a vision, organisational culture change, gaining stakeholder buy-in across all departments through transparency, involving people, and monitoring progress. It was however surprising that only two models have a component that deals with empowering others.

Implications for organisational culture

Extant literature on organisational culture exists and dates to the 1980s (Martínez-Caro et al., 2020). The change that takes place during digitalisation could necessitate a change in the culture of an organisation (Martínez-Caro et al., 2020). Opposing scholarly views argue that a change in organisational culture does not guarantee value creation (Martínez-Caro et al., 2020). A conducive culture is a digital culture that provides support to the transformation (Martínez-Caro et al., 2020; Vial, 2019).

In conclusion, the digital transformation enabled structural changes result in more flexible organisational structures and organisational agility. Organisational agility bodes well for a company's ability to adapt to a changing environment. In contrast to historical IS enabled organisational agility, which was confined to the software industry, digital transformation enabled flexibility transcends sectors. The agility is somewhat curtailed in incumbent businesses due to legacy organisational structure impediments. Literature shows that there are opposing views on the centralisation versus decentralisation of the digital technology function.

2.2.1.3. Changing the value creation process

Vial's (2019) definition of digital transformation suggests that the ultimate goal of digital transformation is to create value for an organisation by transforming the value creation pathways. According to Günther et al. (2017), digital transformation value varies by organisation depending on the strategic intent of pursuing the digital transformation. They focus on economic and social value (Günther et al., 2017). The value creation pathways can be broadly categorised into strategy, organisational structure (Teece et al., 2016), value proposition, value networks, distribution and sales channels (Vial, 2019), processes, and people (Günther et al., 2017). Magistretti et al., (2021) states that digital technologies have essentially altered the the manner in which value is created in organisations. The impact of digital technology on each pathway is discussed in relevant sections.

Social value includes both individual user benefits and larger macro socio-economic benefits. Economic value is measured by different financial metrics including revenue, profitability, growth, (Günther et al., 2017) valuation, the all-encompassing return on investment (ROI) metric (Verhoef et al., 2021). Non-financial metrics vary and include customer engagement, reputation, competitive advantage (Vial, 2019), and metrics that track social value (Günther et al., 2017). Organisations focus on various performance metrics depending on the business model, digital transformation stage and shareholder (Verhoef et al., 2021). However, research demonstrates that new digital businesses prioritize growth measures like revenue and user growth because their goal is to increase the ecosystem's user base and are typically loss making prior to reaching adequate scale (Verhoef et al., 2021). According to Verhoef et al. (2021), investors in digital enterprises who believe that the businesses will make profits in the long run are willing to accept these growth metrics and temporary losses. On the other hand, the incumbent digitally transformed companies focus on the traditional profitability metrics (Vial, 2019).

There is extant literature that mentions the value creation potential of digital transformation (Chanas et al., 2019; Glauner, 2019; Günther et al., 2017; Verhoef et al., 2021; Vial, 2019). To the researcher's knowledge, there is little literature on how value appropriation is accomplished in practice (Günther et al., 2017).

2.2.1.4. Implication for strategy

Digital transformation has various implications for the strategy of an organisation (Günther et al., 2017; Hanelt et al., 2021; Teece et al., 2015; Verhoef et al., 2021; Vial, 2019). This varies from scholar debates on the relationship between a digital

transformation strategy and the broader strategy of the business (Chanas et al., 2019), to the type of digital transformation growth strategy (Verhoef et al., 2021), and digital transformation as a source of competitive advantage (Hanelt et al., 2021; Teece et al., 2016). Using the Ansoff matrix, Verhoef et al. (2021) identifies three growth strategies for existing products and new product development.

Noteable literature points to a digital transformation strategy as being an emergent strategy that incorporates a “fusion view” (p. 18) of a business strategy and an information systems strategy (Chanas et al., 2019). This is attributable to the characteristics of digital transformation which are the dynamism of the operating environment which necessitates an emergent strategy, and its “business-centric” (p.18) nature with IT being an enabler which results in a need for a fusion view strategy (Chanas et al., 2019).

Given the dynamism of the digital disruption, the dynamic capability model is appropriate for understanding digital transformation as a source of competitive advantage. A dynamic capability is “the firm’s ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environment” (Teece et al., 2009). Organisations can achieve this by sensing the opportunity or threat, seizing the opportunity or responding to the threat and transforming the organisation (Teece et al., 2016). In the context of digital transformation, organisations use analytical intelligence insight to sense the opportunity (Hanelt et al., 2021). An entrepreneurial management teams uses its capabilities, leverages organisational agility and reconfigures the organisation’s resources which includes digital technology resources to seize the digital transformation opportunity (Teece et al., 2016). This results in a digitally transformed organisation with a competitive advantage and value creation (Hanelt et al., 2021). An entrepreneurial manager’s superior abilities stem from learning from past experience, as well as stronger managerial and social capital (Teece et al., 2016).

For dynamic capabilities to translate into a sustainable competitive advantage they must be aligned to an organisation’s strategic objectives (Teece et al., 2016). Some scholars argue that digital transformation is aligned with an organisation’s broader theory (Vial, 2019). There is a growing body of literature that posits that digital is a fusion between business strategy and IT strategy (Chanas et al., 2019). Therefore digital transformation is aligned with strategic objectives and the competitive advantage that stems from digital transformation could be a sustainable competitive advantage that could result in a value creation. The researcher does however note that the correlation between dynamic

capabilities and value creation has been historically understudied (Magistretti et al., 2021; Teece et al., 2016). Magistretti et al., (2021) argues that although there has been an increase in literature in this area as it relates to value created for the firm, it still remains scant. She further states that the situation is more dire when considering studies that seek to explore the correlation between dynamic capabilities and value creation for the user.

In conclusion, digital transformation is of strategic importance. Entrepreneurial managers with superior capabilities can adapt to digital disruption by leveraging organisational agility to build or reconfigure company resources to create a sustainable competitive advantage. The sustainable competitive advantage could result in value creation. This is however an area that is currently under researched.

2.2.2. Key drivers of digital transformation

2.2.2.1. Key external drivers: Competitiveness and customer centricity

The digital technology disruption has led to an emergence of new digital businesses and lower barriers to entry with the transition to the digital world (Vial, 2019), thus resulting in increased competitiveness (Hanelt et al., 2021). In addition, the traditional incumbent businesses compete with new digital technology companies for digital skills as digital technology companies are regarded as being more attractive by digital technology employees (Verhoef et al., 2021; Vial, 2019).

To remain remain competitive, organisations need to cater for the consumer's changing demands (Günther et al., 2017; Vial, 2019). Literature shows that the increasing availability and variation of digital technologies has contributed to a change in consumer behaviour (Chaniyas et al., 2019). Changes include higher expectations in terms of services levels as they have access to a wider supplier base (Vial, 2019), a rise in online store purchases versus physical stores (Verhoef et al., 2021), and availability of product co-creation options through customisation (Günther et al., 2017). However, Kohli & Melville (2019) cautioned that capabilities of many organisations are not ready to meet the new customer demands, resulting in a mismatch between supply and demand expectations. Günther et al. (2017) criticised literature for largely focusing on the positive aspects of digital transformation and neglecting social impact such as how the access to personal data and utilisation thereof for big data could raise legal concerns.

The mismatch between supply capabilities of many firms and the demand expectations (Kohli & Melville, 2019) is surprising given that 84% of global organisations regard digital

transformation as a business imperative (Chanas et al., 2019; Kohli & Melville, 2019), and the intensifying competition Günther et al., 2017). This leads to the following research question: What are the key drivers of digital transformation from an investee's perspective?

In conclusion, digital technology disruption has resulted in a more competitive environment. At the same time, digital technologies have fueled a change in consumer demands. There is a concern that in a world where being competitive is not optional, most companies are not adequately prepared for these changing consumer demands.

2.2.2.2. Key internal drivers: Processes, people and other

Existing literature claims that big data analytics, automation and optimisation of processes improve decision-making, scalability, operational effectiveness, and operational efficiencies (Günther et al., 2017; Hanelt et al., 2021; Kohli & Melville, 2019; Verhoef et al., 2021; Vial, 2019). Vial (2019) further adds that the more accurate information has contributed to lower errors and an improvement in quality. Digital transformation also enables new product development.

Artificial intelligence has improved the processing power of processes which helps reduce human error and biases and this has made it possible for machines to carry out activities that formerly required human labour (Günther et al., 2017; Magistretti et al., 2021; Vial, 2019). Humans can now focus on tasks that are more strategic, complex, call for common sense, human experience, and contextual information (Günther et al., 2017; Vial, 2019), suggesting a complementary relationship. Günther et al. (2017), argues that the discussion on the complementary nature of humans and technology is not a new phenomenon, it dates back to the 1960s (Simon, 1968). Some critics of the complementary relationship between humans and digital technology question whether big data will result in any change on this relationship that are different from predecessor technologies (Günther et al., 2017). In addition, data analytics are subject to human interpretation implying that the individuals who interpret and integrate data analytics “may be more influential in decision-making” (Günther et al., 2017). For instance, digital technology have made a ton of information available, but the value is added by humans' capacity to understand the right facts for decision-making (Vial, 2019).

This section has demonstrated how digital transformation can increase the efficiency, scalability, and effectiveness of processes. The enhanced procedures can now do jobs

that were previously completed by people, freeing them up to concentrate on the more strategic and sophisticated tasks that still call for human involvement.

Having shed some light on the external and organisational environment that digital transformation occurs in. The next section presents a review of the literature on the decision-making process for digital transformation.

2.3. Strategic decision-making process

Managerial decisions determine how organisations develop, configure, and allocate resources for business initiatives including digital transformation. There is scant literature on the digital transformation strategy decision-making process. Chanias et al.'s (2019) study on digital transformation strategy making process in pre-digital organisations is one of a few. One of its limitations is transferability of its findings to born-digital companies (Chanias et al., 2019).

Although there is a plethora of literature on strategic leaders and on innovation, comprehensive studies on the impact of strategic leaders on innovation are limited (Cortes & Herrmann, 2021). Cortes & Herrman's (2021) framework states that strategic leaders can impact innovation through (i) power and strategic decision-making (discretionary influence) and (ii) shaping the organisational design and allocation of resources (architectural influence). The researcher leveraged the literature on the general strategic decision-making process; strategic leadership and innovation to infer the implications for the digital transformation strategy decision-making process. Given that this research study focused on how dedicated investors can influence the key decision makers, the literature review in this section focused on understanding the role and influence of key decision makers on the decision-making process. Furthermore, the role of key decision makers in the strategic decision-making process is crucial as Felin et al. (2015) argued that strategic decisions are made by people and not the organisation. The upper echelon theory echoes the sentiments of Felin et al. as it states that the performance of a business is reflective of the senior executives' value, experiences and biases (Altarawneh et al., 2020).

In this section, the researcher begins by describing the role players in strategic decision-making. Thereafter, key characteristics of the decision-making process and factors that affect the key decision makers during the decision-making process are discussed.

2.3.1. Role players in the strategic decision-making process

Burgelman et al. (2018) state that role players in the strategic decision-making process include CEOs, TMT members, board members, middle managers, and other employees.

TMT members are however widely regarded as the main role players in strategic decision-making (Liu et al., 2021).

The large body of knowledge on the influence of role players on the strategic decision-making process and outcomes can be largely categorised into CEO studies and TMT studies (Liu et al., 2021). CEO studies consider the CEO as the key decision maker and focus on the influence of CEO characteristics on the strategic decision-making process without factoring the impact of the TMT on the process (Chin et al., 2021; Liu et al., 2021). There is also empirical research that show “that CEOs’ discretion tends to be higher in industries characterised by volatility and means-end ambiguity such as information technology” (Gupta et al., 2019). Despite digital transformation being a high uncertainty environment with ambiguity, one would expect that the extent of the CEO’s discretion will be moderated as digital transformation is not just limited to technology, but rather spans across organisational functions, and thus requires more collaboration. The findings of Chantias et al.’s (2019) study re-enforced this as they showed that governance structures which promote collaboration are key in digital transformation strategy making and initiatives developed in silos typically face resistance due to internal politics. They further argue that while IT is an essential and important stakeholder in digital transformation, IT should not lead the digital transformation strategy making process as digital transformation is an organisation-wide process that is more business and customer oriented, with technology being an enabler (Chantias et al., 2019). Other key findings from Chantias et al.’s (2019) study are that a combination of a top-down and bottom-up strategy formulation approach is more appropriate for digital transformation strategies as a to-down approach was typically resisted due to internal politics. In addition, various internal and external environmental factors moderate the effect of strategic leaders on innovation (Cortes & Herrmann, 2021).

TMT studies regard the TMT as a unit with equally shared influence on the decision-making process, which is not a true reflection given the inherent unbalanced power dynamics in the TMT decision-making process (Liu et al., 2021). Liu et al. (2021) conducted one of the few studies which explore the influence of the CEO and TMT interactions on the strategic decision-making process and associated outcomes. They conclude that behavioural and relational dynamics that result from interaction of individuals when discussing an issue influence the strategic decision-making process and outcomes (Chin et al., 2021). These dynamics have an impact on the level of participation in the decision-making process, on whether a decision is made and the extent of the TMT members commitment to the decision. Firms benefit from higher interaction between strategic decision makers (Chin et al., 2021). The researcher

expects the relational dynamics between the dedicated investors and key decision makers to have an impact on the digital transformation strategic decision-making process.

2.3.2. Key characteristics of the strategic decision-making process

With extensive literature dating back to the 1970s, strategic decision-making remains a well-researched area within the strategy process discipline (Burgelman et al., 2018; Pye & Pettigrew, 2005). Over the past three decades, most strategic decision-making process studies have largely focused on two characteristics being comprehensiveness and speed (Kauppila et al., 2018; Musaji et al., 2020). Kauppila et al. (2018) describe comprehensiveness as the breadth and depth of the process, extensiveness of the information gathering and analysis, and the integration level of strategic decisions. Speed relates to the pace of the decision-making process from idea generation to the point where the commitment to the decision is made (Kauppila et al., 2018; Musaji et al., 2020).

Most historical studies that examine the impact of comprehensiveness and/or speed on the outcome of the strategic decision lack consensus in their findings (Kauppila et al., 2018). Some studies attribute superior outcomes to more comprehensive processes, while others favour the use of heuristics over comprehensive processes (Chin et al., 2021; Kauppila et al., 2018; Laureiro-Martínez & Brusoni, 2018; Musaji et al., 2020). Similarly for speed, some studies argue for faster processes to seize opportunities and where first mover advantage is critical. This is in contrast with literature that warns against the detrimental effects of a fast pace which compromises the decision content (Kauppila et al., 2018). Fast paced decision-making processes typically rely on the board of directors, and/or the top executives' heuristics (Bingham & Eisenhardt, 2011; Kauppila et al., 2018) and intuition (Akinici & Sadler-Smith, 2019; Chin et al., 2021), and overlooks employee initiatives. Kauppila et al. (2018) found that fast paced decision-making processes without comprehensive analysis are not conducive for employee self-initiated creative projects and lead to employees shying away from projects with uncertain outcomes, which can inhibit innovation. Comprehensive slow-paced processes are more supportive of high-risk projects with uncertain outcomes (Laureiro-Martínez & Brusoni, 2018). With digital transformation being a long-term project with uncertain outcomes, the researcher thus expects that comprehensive slow-paced processes to be more conducive for digital transformation. In addition, one would expect the buy-in and innovation from the relevant managers and employees across the organisation to be vital

for digital transformation which is an organisation wide change that benefits from innovation.

Kauppila et al. (2018) attribute the lack of consensus to a focus on firm level outcomes which are impacted by other macro-level factors that are exogenous to the strategic decision-making process, and limited investigations on micro-level factors that influence the strategic decision-making process. As a micro-level analysis, the proposed study contributes to addressing the concern raised by Kauppila et al.

2.3.3. Strategic decision-making process: key influencing factors

Processes do not operate in a vacuum, they are affected by context (Pye & Pettigrew, 2005; Vuori & Huy, 2022). Key factors that influence the strategic decision-making process and the key decision makers include cognitive processes, politics, chance, intuition (Eisenhardt & Zbaracki, 1992; Vuori & Huy, 2022), the motivation of key decision makers (Vuori & Huy, 2022), and economic forces (Kohli & Melville, 2019).

2.3.3.1. Uncertain outcomes in digital transformation

Digital ecosystems that underpin digital transformation are complex, and are constantly changing due to changing consumer demands, emergence of disruptive technologies, increasing competition from both traditional and non-traditional competitors and an increase in the availability of data (Hanelt et al., 2021; Stouten et al., 2018; Teece et al., 2016; Vial, 2019). Digital transformation thus has a high level of uncertainty which stems from the digital ecosystems, and translates into uncertain digital transformation outcomes.

Morreale et al.'s (2019) categorisation of the sources of uncertainty in investment decisions is appropriate because a digital transformation strategic decision is an investment decision as it requires resource allocation. Morreale et al. (2019) found that there are two sources of uncertainty in investment decisions: fundamental uncertainty on future returns and strategic uncertainty that is driven by the reaction of competitors. The total value to be created by a digital transformation strategy is uncertain and can thus be classified as fundamental uncertainty. The manner in which a firm's competitors will respond to the firm's digital transformation strategy is uncertain, thus leading to strategic uncertainty.

Highlighting the type and extent of uncertainty that is pervasive in digital transformation, Janeway (as cited in Teece et al., 2016) posited that "the innovation economy.... is saturated in unquantifiable uncertainty". Although uncertainty is not new to the business world, the level of uncertainty is exacerbated by the constantly changing digital

technologies, unknown forms of cyber crimes and incomplete knowledge of the changing competitive environment (Günther et al., 2017; Teece et al., 2016; Vial, 2019). Digital transformation uncertainty thus requires proactive management (Teece et al., 2016). Teece et al. (2016) argue that conventional risk management techniques are not appropriate nor suitable for managing deep uncertainty mainly because they are designed for known unknowns whereas, uncertainty refers to “unknown unknowns” (p. 14). Using the dynamic capability framework, they propose that entrepreneurial managers can leverage organisational agility as a resource to manage uncertainty and to create value. Entrepreneurial management have a superior ability to reconfigure the organisation’s financial resources, human capital and other resources to respond to the rapidly changing environment (Teece et al., 2016). In the digital transformation context with high uncertainty of outcomes, companies can sense the opportunity by applying scenario planning tools and data analytics. According to Teece et al. (2016), the most commonly used techniques for transforming companies in highly uncertain digital transformation environments include the following:

- “Build-measure-learn” (Teece et al., 2016, p.25) is an incremental approach that entails developing a minimum viable product (MVP), launching it in the market and measuring the customer response, and using lessons learned from responses to adjust the product offering (Chanas et al., 2019; Teece et al., 2016).
- “Lean startup” or “fail fast” (Teece et al., 2016, p.25) technique is an experimentation oriented approach that encourages learning by doing versus heavy reliance on comprehensive business plans (Chanas et al., 2019; Teece et al., 2016). This methodology is better suited to a setting with low development costs and rapid client feedback (Teece et al., 2016). In addition, Vial argues that the organisations must encourage experimentation as part of their organisational culture (Vial, 2019).

Kannan-Narasimhan & Lawrence (2018) found that decision makers of large institutions generally focus on higher certainty projects that are aligned with the existing strategies versus new innovations with more uncertain feasibility. Avoiding new technological innovation due to the fear of uncertainty increases a company’s exposure to technology obsolescence risk and market uncertainty risk due to changing customer preferences (Dong, 2021). Given that innovation is an integral part of digital transformation, one expects that the uncertainty of digital transformation strategic outcomes could deter decision makers from pursuing digital transformation strategic decisions. This leads to the following research question: What factors influence key decision makers during the digital transformation decision-making process?

In this research study, the researcher explored what convinced some key decision makers to pursue a digital transformation strategy inspite of the uncertainty of outcomes. In their study, Kannan-Narasimhan & Lawrence (2018) showed how successful innovators convince key decision makers to adopt their nascent innovations with uncertain feasibility by reconceptualising firm resources through leveraging their intimate understanding of the firm's existing resources. Lower level innovators and decision makers have a different understanding of the firm's resources (Kannan-Narasimhan & Lawrence, 2018). This study is an example of a bottom up influence on the strategic decision-making process. One would expect that a different understanding of digital transformation related opportunities may exist between dedicated institutional investors and key decision makers. One would also expect that dedicated institutional investors could leverage this difference for a top down influence on key decision makers. This prompted the researcher to seek to understand what factors influence the key decision makers during the digital transformation decision-making process.

2.3.3.2. Cognitive factors

Literature shows that the key cognitive factors that affect key decision makers are bounded rationality and emotions aroused during the decision-making process (Akinci & Sadler-Smith, 2019; Chin et al., 2021; Vuori & Huy, 2022).

These key cognitive factors are discussed below.

2.3.3.3. Bounded rationality

Bounded rationality is the notion that individuals have limited rationality during decision-making due to information limitations, time constraints and cognitive abilities (Dong, 2021; March & Simon, 1958; Vuori & Huy, 2022). Due to bounded rationality, key decision makers use mental simplifications during decision-making. Historical research has explored forms of cognitive simplifications such intuition (Akinci & Sadler-Smith, 2019; Chin et al., 2021) and disadvantages of cognitive biases (Vuori & Huy, 2022).

Intuition relies on past experiences and simple heuristics, and is useful for domain-experienced decision makers in time sensitive and uncertain decision-making (Akinci & Sadler-Smith, 2019; Chin et al., 2021; Musaji et al., 2020; Zhu et al., 2020). Earlier research on the impact of intuition on the decision-making process has largely focused on the individual level (Akinci & Sadler-Smith, 2019). More recent research shows that group strategic decisions benefit from a combination of team cognition such as collective intuition and deliberation (Akinci & Sadler-Smith, 2019). Akinci and Sadler-Smith (2019) define collective intuition as "independently formed judgement [by various group

members] based on domain-specific knowledge, experience, and cognitive ability, [that are] shared and interpreted collectively” (p. 558).

Given that the appropriate cognition process varies depending on various factors (nature of the decision, timing thereof, available alternatives and uncertainty), the strategic decision-making process benefits from cognitive flexibility (Laureiro-Martínez & Brusoni, 2018). Cognitive flexibility refers to a strategic decision maker’s ability to know when to rely on intuition and when more comprehensiveness is required (Laureiro-Martínez & Brusoni, 2018). One would expect that key decision makers that possess cognitive flexibility will bode well for effective digital transformation strategic decision-making.

Since cognitive biases seek to satisfice, they can lead to sub-optimal strategic decisions (Vuori & Huy, 2022). Through the strategic decision-making process, groups (including the board of directors) can influence the cognitive understanding of the decision makers on strategic matters (Hoppmann et al., 2019). One would expect that by virtue of their board membership, dedicated institutional investors could influence the cognitive understanding of decision makers during digital transformation strategic decision-making process.

Vuori & Huy (2022) state that avoiding cognitive biases on its own is not adequate for mitigating the adverse impact of cognitive challenges on the strategic decision-making process as emotions also have a significant impact on cognition.

2.3.3.4. Impact of emotions on strategic decision-making

The strategic decision-making process can trigger emotions among decision makers, and this is exacerbated for uncertain and high risk decisions (Vuori & Huy, 2022). Emotions have an impact on communication, information sharing, and the behaviour, cognition and actions of decision makers (Vuori & Huy, 2022). Negative emotions can result in the decision makers overlooking the contribution of others, leading to inferior decisions (Vuori & Huy, 2022). Literature on the impact of emotions on strategic decision-making has grown over time, with earlier studies focusing on why, when and how emotions are aroused in managers during strategic decision-making (Vuori & Huy, 2022). More recent studies are incorporating individual-level emotion regulation in strategic decision-making (Vuori & Huy, 2022). Research on how key decision makers or other groups regulate the emotions of key decision makers remains limited (Vuori & Huy, 2022). Individual-level emotion regulation techniques are not effective at a group level due to heterogeneity and are also not effective in ambiguous situations with uncertain outcomes (Vuori & Huy, 2022). In their study on Nokia’s socially distributed emotion

regulation, Vuori & Huy (2022) found that conducive firm structures and a group's ability to regulate group-wide emotions enhances the effectiveness of the strategic decision-making process. Furthermore, the success of emotion regulation is also influenced by the timing, sequencing, and combination of actions. Raffaelli et al. (2019) also found that cognitive shifts are critical for companies to adapt to technological change and that defensive emotions may be inhibitors of technological change. By addressing emotional obstacles to cognitive change, emotion regulation can be an enable for technological change.

2.3.3.5. Politics during strategy making

Strategic decision makers may engage in politics during the strategy making process due to conflicting interests and power imbalances, and strategic decisions typically reflect the interests of the most powerful decision makers (Eisenhardt & Zbaracki, 1992). Studies over the past 5 decades have shown coalition formation is one of the political techniques that executives leverage to ensure that their own interests in a decision-making process (Liu et al., 2021). In the context of digital transformation, Chanas et al. (2019) noted that internal politics could adversely affect digital transformation initiatives that are formulated in silos as digital transformation is a cross-functional process that requires input from multiple stakeholders across the organisation.

2.3.3.6. Impact of chance: Garbage can model

Cohen et al. (1972) criticise the strategic decision-making bounded rationality and political paradigms for being limited in ambiguous and complex environments. They propose the Garbage can model which is premised on strategic decisions being products of an intersection of random individuals, opportunities, problems, solutions, and timing (Akinci & Sadler-Smith, 2019; Cohen et al., 1972). However, empirical research shows that the Garbage can model is less robust in the short term and its robustness improves with an increase in time frame (Akinci & Sadler-Smith, 2019; Pye & Pettigrew, 2005). The Garbage can model is not appropriate for decision-making processes with deadlines (Eisenhardt & Zbaracki, 1992).

2.3.3.7. Motivational factors that affect key decision makers

There is limited research on the motivational factors that influence key decision makers to pursue specifically the digital transformation strategic decisions with uncertain outcomes. There are however studies that have explored the following single motivational factors that influence a CEOs strategic decision-making: "financial self-interest, pay comparisons, personal preferences, and relational considerations" (Samimi

et al., 2020, p. 2). To the researcher's knowledge, the shortcoming of the historical CEO studies is that they have not explored how the integration of these motivational factors influences CEO strategic decisions (Oehmichen et al., 2021; Samimi et al., 2020). Leveraging these studies is appropriate because the CEO as the most senior executive strategic leader (Samimi et al., 2020), plays an integral role in the formulation and implementation of a firm's strategy (Altarawneh et al., 2020; Crittenden & Crittenden, 2008). There is a vast amount of studies on the characteristics of CEO, and the impact thereof on firm performance and the quality of the firm's reporting, which have produced mixed results on the extent of firm performance that is attributable to CEO characteristics (Altarawneh et al., 2020; Samimi et al., 2020). There is however consensus from previous studies that CEOs are key to firm performance (Gupta et al., 2019).

Managerial incentives differ across the different ownership forms (Banerjee & Homroy, 2018). The CEO compensation structure (cash, stocks, stock option vesting period, etc.) has an influence on the CEO's risk-taking behaviour and firm value (Banerjee & Homroy, 2018). For example, Brisley et al.'s (2021) study highlighted that when a CEO's equity exposure relative to their total personal wealth exceeds an acceptable level to them, the CEO may be incentivised to select lower risk projects for the firm to achieve personal diversification even if it's at a sub-optimal diversification level for the investors. Studies conducted between 1994 to 2015, which sort to predict CEO risk behaviour linked to compensation structure yielded mixed results as they did not incorporate individual differences in CEO responses to remuneration (Benischke et al., 2019). Benischke et al.'s (2019) study demonstrates that incorporating personality traits in the design of compensation structures improves managerial incentive alignment. Furthermore, an experimental study conducted by Carson et al. (2022) showed that an individual's risk tolerance level also influences their strategic decision-making on projects with uncertain outcomes. There is room to advance research on managerial motives and alignment thereof with managerial incentives that are put in place by dedicated institutional investors (Oehmichen et al., 2021).

Literature on the influence of CEO incentives on IT innovation is scant, with previous studies having focused on influence managerial incentives on business performance or IT investments (Choi et al., 2021). Empirical research shows that equity-based CEO incentives are an effective managerial incentive for IT innovation, and this relationship is enhanced by CEOs' IT education and experience (Choi et al., 2021). One would thus expect that equity-based CEO incentives and more so for CEOs with an IT background and experience would have a positive impact on digital transformation strategies. By

virtue of their membership on board remuneration committees, one would expect that dedicated institutional investors could influence managerial incentives to drive a digital transformation strategy.

2.4. Institutional investors

2.4.1. Definition and types of institutional investors

An institutional investor can be defined as a legal entity that acts as an intermediary to pool funds from various sources and invest the funds in different publicly and/or privately held investment vehicles (Fitza & Tihanyi, 2017; Sampson & Shi, 2020; Wahal & McConnell, 2000). Institutional investors include pension funds, hedge funds, private equity firms, venture capital firms, etc. (Cremers et al., 2020; Sampson & Shi, 2020).

The types of institutional investors vary by many factors including regulatory structure, investment mandates, due diligence processes and investment monitoring activities. Institutional investors can be categorised by trading behaviour into:

- **Transient:** short-term oriented, hold investment portfolios comprising of small holdings across a wide number of firms and rely on short-term financial market movements for their frequent trades (Harford et al., 2018).
- **Dedicated:** long-term oriented (Harford et al., 2018), more concentrated investment portfolios with a significant shareholding in each investee firm, have access to more private firm information, invest significant time and resources to process and understand complex business information and are independent of short-term capital market pressure to boost short term earnings (Oehmichen et al., 2021). Oehmichen et al. (2021) state that the comprehensive information gathering and processing capacity and capability of dedicated institutional investors demonstrates their commitment.

Given their higher commitment level to investee firms, one would expect dedicated investors to be relatively more involved in the digital transformation decision-making process of investee firms than transient investors, and would thus expect the dedicated investors to be better positioned to assist investee companies to pursue digital transformation. This leads to the following research question: How can dedicated investors assist investee companies to pursue digital transformation?

2.4.2. Role of institutional investors on an organisation's strategy

In order to understand the impact of dedicated institutional investors on the digital transformation strategy decision-making process, the researcher begins by unpacking literature on the role of institutional investors on a firm's strategy.

The success of an organisation's strategy is influenced amongst other factors by the formulation and implementation thereof (Crittenden & Crittenden, 2008). Crittenden & Crittenden (2008) argue that strategic leadership is one of the eight levers of a successful strategy formulation and implementation process. According to Samimi et al. (2020), strategic leadership is "the functions performed by individuals at the top levels of an organisation (CEOs [chief operating officers], TMT members [top management team], directors and general managers) that are intended to have strategic consequences for the firm" (p. 3). Eight functions of strategic leaders include strategic decision-making (Samimi et al., 2020). Through engaging with and influencing strategic leaders, firm owners have an influence on the strategic decision-making of a firm (Fitza & Tihanyi, 2017; Oehmichen et al., 2021). As owners, institutional investors with a significant stake in an investee company thus have influence on the strategic decision-making of their investee firms, whether it be publicly listed or privately held firms.

Dating back to 1985, scholarly literature on the impact of ownership on strategic decision-making has largely focused on institutional investor form of ownership in publicly listed firms (Fitza & Tihanyi, 2017; Oehmichen et al., 2021; Sampson & Shi, 2020, Wahal & McConnell, 2000). Institutional investors dominate the ownership of publicly listed entities, accounting for 41% of the world's stock market capitalization (De La Cruz et al., 2019). Despite a higher number of private than public firms across the globe, most of the literature is based on information of publicly listed entities which is more freely available due to legal and regulatory reporting disclosure requirements on listed firms (Fitza & Tihanyi, 2017). As a result, most of the literature discussed in this literature review is based on studies that were conducted on publicly listed companies. With the research problem being focused on privately owned firms, to the extent that the form of ownership could be an influencing factor in the findings of those studies, in the literature review of this report the researcher applies caution with generalisation of findings from studies conducted in a publicly listed setting to a privately owned setting.

2.4.3. The influence of institutional investors on a firm's strategy and value

Leveraging Barney's Resource-Based View (RBV) theory, Litov et al. (2012) argued that the distinctiveness of an organisation's strategy compared to industry peers (strategy uniqueness), enhances a firm's long-term value. The RBV theory states that resources

that are valuable, rare and costly to imitate create a sustainable competitive advantage which leads to value creation for the firm (Barney, 1991). To the extent that strategic decisions taken to address the digital transformation grand challenge are rare, valuable, and costly to imitate, these strategic decisions to result in long-term value accretion for investee firms.

Literature and empirical research shows that despite the long-term value creation of unique strategies, most CEOs of public firms pursue strategic decisions with short-term benefits at the expense of long-term competitive advantage and value, a phenomenon known as managerial myopia (Cremers et al., 2020; Keum, 2021; Sampson & Shi, 2020). Managerial myopia is largely attributable to information asymmetry between institutional investors and managers of investee firms (Sampson & Shi, 2020). This information asymmetry contributes to adverse selection (institutional investors' response to the information asymmetry) and moral hazard (managers using information asymmetry for their own gain) agency problems (Oehmichen et al., 2021).

The moral hazard problem and mitigation thereof through strong corporate governance is a well-researched area (Naciti, 2019). With less information about a unique strategy than the investee's CEO and with the cost of reducing the information asymmetry outweighing the benefit for them, transient investors undervalue unique strategies (Oehmichen et al., 2021). In addition, the long-term payoff profile of unique strategies exacerbate the valuation challenge due to higher uncertainty associated with the more distant future (Cremers et al., 2020). Short term undervaluation of a unique strategy may threaten a CEO's career and remuneration to the extent that these are linked to short-term valuation of the business (Cremers et al., 2020; Sampson & Shi, 2020). Thus despite the potential long term benefits of a unique strategy for shareholders, for career preservation a CEO may pursue a less optimal and easier to value common strategy which may temporarily boost short-term earnings and firm value (Cremers et al., 2020; Harford et al., 2018; Oehmichen et al., 2021). CEOs are thus faced with a uniqueness paradox.

Long-term oriented dedicated institutional investors with a higher strategy information processing capacity alleviate a CEO's concern about a career threatening unwarranted discount on a firm's unique strategy (Oehmichen et al., 2021). Oehmichen et al.'s (2021) study showed that the uniqueness of a strategy benefits from the long-term orientation and commitment of dedicated institutional investors, and this positive impact is more pronounced in hard-to-value contexts that are characterised by higher uncertainties about the future. Since digital transformation strategies are characterised by high

uncertainty of outcomes and the associated payoff profile, one would expect that the long-term orientation and commitment of dedicated institutional investors will bode well for digital transformation strategies. In addition, long term investors have a positive influence on innovation and returns on shareholder value (Harford et al., 2018), suggesting that the ownership by dedicated investors may have a positive influence on digital transformation strategy.

There is however a gap in literature on the actual involvement of dedicated institutional investors in the strategy decision-making process as most of their discussions between with investee managers are private (Oehmichen et al., 2021). This study helps with answering the following research question: How can dedicated institutional investors assist investee companies to pursue digital transformation?

Role of board of directors/Impact of board governance on strategy

Given that dedicated investors are typically non-executive directors of investee companies, it is important to provide an overview of the role of the board of directors (board) and board governance on organisation's strategy. Literature on the role of the board shows that the role has evolved from earlier studies which showed the role as being more reactive monitoring and control to more proactive involvement in influencing the strategy of a company (Hoppmann et al., 2019). In addition, historical academic literature concentrated on the external board factors as board meetings are internal discussions. The role of the board includes playing an advisory and guidance role to the executive directors, monitoring and control, appointment and dismissal of key executive managers, assess initiatives presented by management and approve or reject based on delegated authority, involvement in strategy formulation and overseeing implementation of the strategy (Hoppmann et al., 2019). According Hoppmann et al. (2019), boards with more non-executive directors that have skills, experience and industry networks are better able to respond to strategic changes (Hoppmann et al., 2019). A large board with multiple shareholding directors can impede the strategic decision-making process.

Extant corporate governance literature shows that inertia can prevent organisations from responding timeously to change (Hoppmann et al., 2019). Most scholars attribute the inertia to management cognitive factors, inappropriate incentivisation, difficulties in re-configuring company resources and capabilities (Hoppmann et al., 2019). Hoppmann et al.'s (2019) study shows that boards can also contribute to organisational inertia during change.

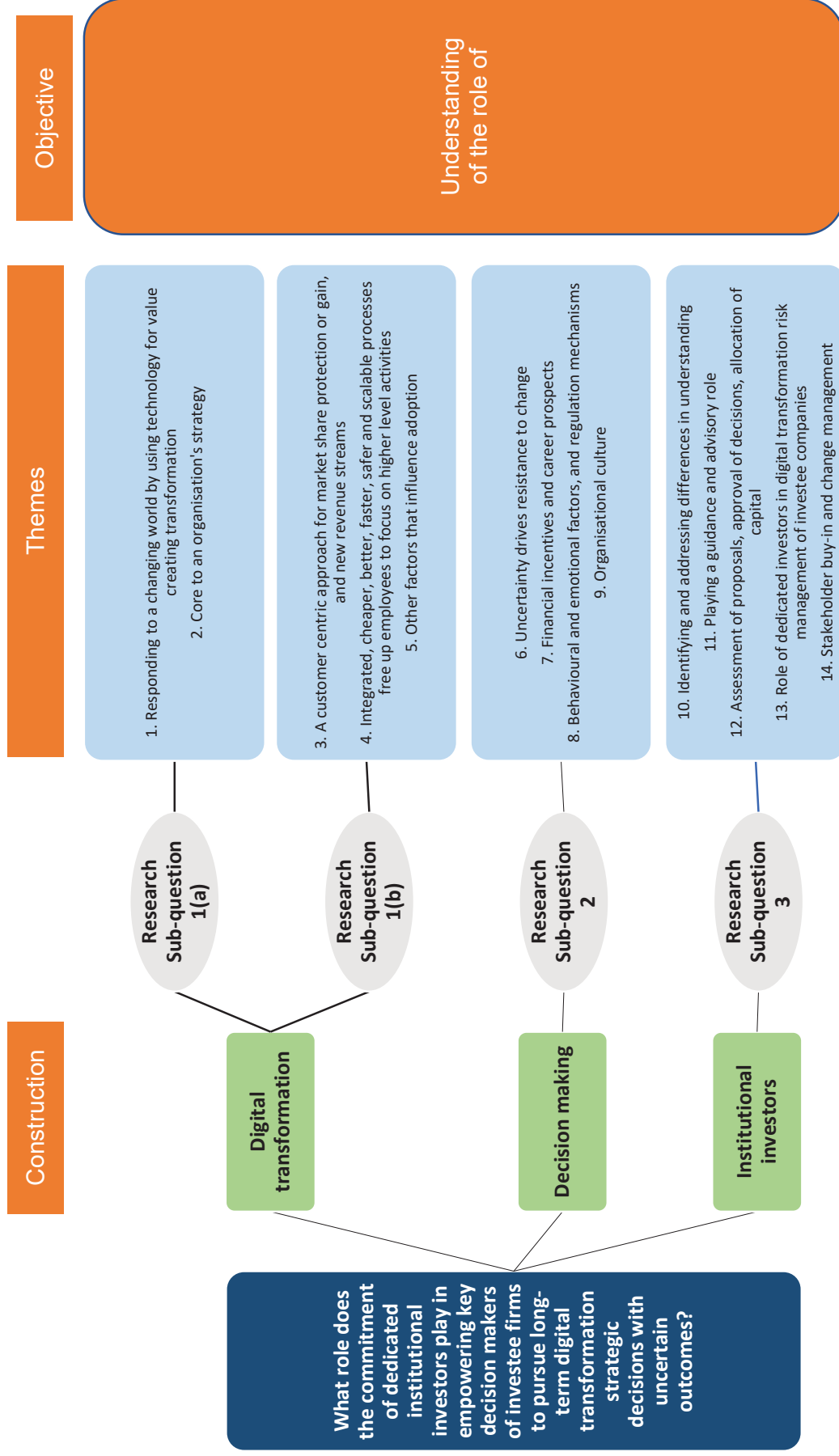
2.5. Literature review conclusion

The literature review shows that while there are aspects of the constructs that are well researched, research is largely fragmented and there exist a knowledge gap in the integration of these constructs which warrants further research. This prompted the researcher to conduct the study that is documented in this report.

The diagram below provides an overview of the research process. In the section after the chart, the primary research question and sub-ordinated research questions are presented.

Figure 3: Research Overview

Research overview



Note. Author's own.

Chapter 3: Research questions

3. Research questions

The research questions were formulated in line with the research aims presented in chapter 1 and they emanated from the literature review in Chapter 2 above.

3.1. Primary research question

A survey of literature in Chapter 2 showed that there is extensive literature on strategic decision-making, and growing academic literature and empirical research studies on: the role of ownership in strategic management; the impact of the relationship between firm managers and owners on firm strategy and resultant firm performance (Oehmichen et al., 2021); and strategic implications of rising digital transformation (Hanelt et al., 2021). There is however a theoretical gap in knowledge on the interaction of these above-mentioned topics of corporate strategy. The primary research question is as follows: What role does the commitment of dedicated institutional investors play in empowering key decision makers of investee firms to pursue long-term digital transformation strategic decisions with uncertain outcomes?

3.1.1. Sub-ordinate research questions

Key themes that emerged during the literature review resulted in the following research questions that were subordinate the primary research question.

3.1.1.1. Research sub-question 1: Why do investee companies pursue digital transformation?

Research sub-question 1 sought to understand the reasons that investee companies adopt digital transformation. This was achieved by exploring the investees' understanding of the notion of digital transformation and their understanding the key drivers of digital transformation. Research Sub-question 1 was thus addressed through the following questions:

(i) Research sub-question 1(a): What do investee companies understand by the term digital transformation?

Differences in Vial (2019), Hanelt et al. (2021) and Verhoef et al.'s (2021) definitions have been highlighted as three among a myriad of definitions. Based on this, one would expect that the different definitions could result in different understandings of the term

digital transformation by investee companies. Research Sub-question 1(a) aimed to comprehend the investee companies' understanding of digital transformation

(ii) Research sub-question 1(b): What are the key drivers of digital transformation from the perspective of investee companies?

The mismatch between supply capabilities of many firms and the demand expectations (Kohli & Melville, 2019) is surprising given that 84% of global organisations regard digital transformation as a business imperative (Chaniyas et al., 2019; Kohli & Melville, 2019), and there is intensifying competition (Günther et al., 2017). Research Sub-question 1(b) sought to understand the key drivers of digital transformation from an investee company's perspective.

3.1.1.2. Research Sub-question 2: What factors influence the key decision makers during the digital transformation decision-making process?

Kannan-Narasimhan & Lawrence (2018) found that decision makers of large institutions generally focus on higher certainty projects that are aligned with the existing strategies versus new innovations with more uncertain feasibility. Avoiding new technological innovation due to the fear of uncertainty increases a company's exposure to technology obsolescence risk and market uncertainty risk due to changing customer preferences (Dong, 2021). Given that innovation is an integral part of digital transformation, one expects that the uncertainty of digital transformation strategic outcomes could deter decision makers from pursuing digital transformation strategic decisions. Research Sub-question 2 sought to understand factors that influence key decision makers during the digital transformation decision-making process of investee companies.

3.1.1.3. Research Sub-question 3: How can dedicated institutional investors assist investee companies to pursue digital transformation?

Oehmichen et al. (2021) state that the comprehensive information gathering and processing capacity and capability of dedicated institutional investors demonstrates their commitment. Given their higher commitment level to investee firms, Research Sub-question 3 sought to understand ways that dedicated institutional investors can assist investee companies to pursue digital transformation

Chapter 4

4. Research methodology

4.1. Introduction

This research study was conducted through interviewing participants who are key decision makers in investee companies, dedicated institutional investors who invest in investee companies and a digital technology expert who provides digital technologies to investee companies. This section sets out the research design methodology and rationale thereof. A graphical representation of the roadmap of this chapter is set out below.

Figure 4: Roadmap of chapter 4



Note. Author’s own.

Overall, the researcher’s study, which is an explorative study, utilised a qualitative research methodology. Qualitative research methods are useful for explorative studies that seek to gain an in-depth understanding of a phenomena (Palinkas et al., 2015). Setting clear research objectives will ensure an efficient data collection and analysis

process (Cypress, 2018).

4.2. Research paradigm

Ontological considerations: Ontology refers to the understanding of the nature of reality and was concerned with whether the phenomenon being studied is a social construct (constructivism) or exists independently of the observers (objectivism) (Bell et al., 2019). Key features of constructivism are that: (i) the social group participants create the reality and (ii) the reality is constantly changing (Bell et al., 2019). Constructionism is the most appropriate ontological position for this study as the influence of the commitment of dedicated institutional investors on key decision makers to pursue uncertain digital transformation strategic decisions is a social construct created through the social interaction between the dedicated institutional investors and the key decision makers, and this is a constantly changing reality.

Epistemological consideration: Epistemology refers to the understanding of knowledge which can be subjective (interpretivism) or objective (positivism) (Levers, 2013) or pragmatic. Interpretivism seeks to understand “the ‘how’ and the ‘why’ of social action” (Bell et al., 2019, p. 31). Each key decision maker’s experience in this study was subjective as it was based on their individual experience based on their own interaction with a dedicated institutional investor. Similarly, each dedicated investor representative’s experience was subjective based on their own interaction with key decision makers. Thus, the interpretivism was most suitable epistemology.

4.3. Research method and design

Inquiry logic: The different objectives of inquiry logics are to (i) identify themes and develop a theory (inductive); (ii) test an existing theory (deductive); or a combination inductive and deductive (abductive) (Bell et al., 2019). Since this study was focused on understanding each participant’s (key decision maker and dedicated institutional investor representative) experience to build themes, an inductive approach is more suitable. Creswell (2007) states that the inductive approach involves using data from participants to identify themes.

With a constructivism ontology, an interpretivism epistemology, and an inductive inquiry logic, it followed that the study be a qualitative methodology. The research method that was used was a **qualitative survey with in-depth interviews**. It is an appropriate method to understand the lived experiences of the interviewees when their organisation was making decisions on the digital transformation strategy. In addition, the data

collected from participants allowed the researcher to identify any themes and commonalities.

4.4. Research setting

The setting for the study is all private companies that are owned by dedicated institutional investors that have made long-term digital transformation strategic decisions.

4.5. Level of analysis, unit of analysis and unit of observation

The **level of analysis** is a micro level as the researcher is interested in the interaction of key decision makers of investee companies and dedicated institutional investor representatives, who are all individuals. The **unit of analysis** was the digital transformation strategy decision-making process. **Unit of observation.** The research comprised of 2 data sets which formed 2 units of observation being (i) key decision makers in investee companies; and (ii) representatives of dedicated institutional investors.

4.6. Sampling method

The setting was too large, spread across the globe and the researcher was unable to access the whole setting. The researcher utilised purposive sampling. Purposive sampling is a non-formulaic sampling method that requires the researcher to apply discretion to select participants who are knowledgeable in the area of study (Dudovskiy, 2022). In qualitative research, purposive sampling was useful for identifying high quality data sets while factoring effective utilisation of limited resources (Saunders et al., 2007). Purposive sampling is appropriate for the researcher's study because: the study utilised a qualitative research method, the researcher can identify suitable participants and there is a time constraint to the research.

The focus of the study was on privately owned entities as a theoretical gap was identified. The researcher is employed in the private equity industry and leveraged her professional network and the South Africa Venture Capital Association (SAVCA), a private equity and venture capital industry body, to identify participants. Most dedicated institutional investors in SA are private equity firms, venture capital firms or investment holding companies that are members of SAVCA. The snowball purposeful sampling method was used for dedicated investors or entities owned by dedicated institutional investors that fall outside of the researcher's own professional network (Palinkas et al., 2015). Snowball sampling refers to relying for referrals on people who may know other people who fit the sampling selection criteria (Palinkas et al., 2015).

4.7. Sampling criteria and sample size

For purposive sampling, Palinkas et al. (2015) recommend that the identification and selection sampling criteria must consider participants that are “ knowledgeable about or experienced with a phenomenon of interest” (p. 534), are available and willing to participate in the research study, and can communicate their experience effectively. The following sampling criteria was used.

4.7.1. Sampling criteria for key decision makers:

- Type of organisation: South African private companies owned by dedicated institutional investors that are currently or have historically been involved in a decision-making process for long-term digital transformation strategic decisions.
- Type of person:
 - A key decision maker for digital transformation strategic decisions and has experience in the decision-making process for long-term strategic decisions with uncertain outcomes. These decision makers included Chief Executive Officers (CEOs), Chief Information Officers (CIO), chief financial officers (CFO), chief information officers (CIO), and a board chairman.
 - A key decision-maker who interacts with the dedicated institutional investor representatives.
 - A key decision-maker that was available and were willing to be interviewed for the purpose of this research.

4.7.2. Sampling criteria for dedicated investor representatives:

The researcher triangulated by also interviewing representatives from dedicated institutional investors. The sampling criteria for investor representatives was as per the following:

- Type of organisation: the investor must be a dedicated institutional investor as defined that currently or has historically invested in privately owned South African investee companies that have made long-term digital transformation strategic decisions with uncertain outcomes.
- Type of person: the investor representative must have interacted with key decision makers of their investee company/(ies) during the decision-making process of digital transformation strategic decisions with uncertain outcomes. These representatives are likely to include non-executive directors on the investee companies’ board of directors (board) who represent the dedicated investor on the board.
- A dedicated investor representative that was available and were willing to be interviewed for the purpose of this research.

4.7.3. Sampling criteria for digital technology expert:

To triangulate the findings from key decision makers and dedicated institutional investors, the researcher also interviewed a digital technology expert that provides digital technology solutions to various companies including investee companies. The researcher was aware that the responses from the digital technology will relate mainly to the technology aspect of digital transformation and will be limited in the areas that relate to internal conversations between educated investors and investee companies which the digital technology expert will not have access to.

To allow for data variation, the researcher selected a sample that was diverse in respect of the following:

- Sector diversity: targeted interviewees operated in various sectors financial technology, logistics, apparel, technology, automotive, management consulting, investments and other. Other represents industries of the dedicated investors, as the interviewed dedicated institutional investors are employed by investment companies with sector agnostic mandates.
- Cross functional: targeted key decision makers included CEOs, managing directors, chief financial officers (CFO), chief information officers (CIO), and board chairman.
- Size of dedicated investors' funds under management which included a small, medium, and large fund. In addition, the types of funds that dedicated investors are employed by include a traditional private equity firm, a B-BBEE private equity firm and a fund that focuses on investing in small and medium enterprises (SME).
- The digital transformation journey of the underlying investee companies of key decision makers and dedicated investors. There are underlying investee companies that implemented successfully, others with failed implementation and those in the early stages of digital transformation.
- Diversity in terms of success and failure of initiatives.

For triangulation, more than one representative of the same investee company was interviewed in some cases.

4.8. Sample size

Data saturation is an important consideration for qualitative research and in the determination of the sample size (Fusch & Ness, 2015). Data saturation, a point whereby adding additional participants will not yield new information, themes or coding will be used as a guide on sample size (Boddy, 2016; Fusch & Ness, 2015; Palinkas et al., 2015). Various factors including study design and population size have an impact on

when data saturation is reached (Fusch & Ness, 2015). Guest et al.'s (2006) study found that saturation for qualitative studies is achieved within the first 12 interviews. Fusch & Ness (2015) proposed that the use of data that is rich (where richness refers to quality) and thick (where thickness refers to quantity) is a more appropriate consideration for data saturation. Fusch and Ness (2015) also posited that saturation is reached much quicker in qualitative studies, mostly because of the wealth of information the researcher can gather from one source. For this study, we considered both the saturation guidance level of 12 interviews as well as the richness and thickness of data.

For key decision makers, the interview targeted a sample size comprised of 12 to 15 participants. Data saturation for key decision makers was reached as at interview number 12 when new quotes only counted 2% of total codes. The interviewer did not continue interview additional key decision makers after the saturation point. For dedicated investor representatives, the sample size was 3 participants as dedicated investor interviews are conducted to corroborate findings from key decision makers and dedicated investors are typically investors across different investee companies operating in different sectors, thus suggesting that they are likely to provide rich and thick information. For the digital technology expert, the sample size was 1 participant as this interview was conducted to corroborate the key decision maker and dedicated investor findings as it relates mainly to the digital technology aspect. A table with a summary of the profiles of participants is shown below.

Table 1: Summary of interviewee profiles

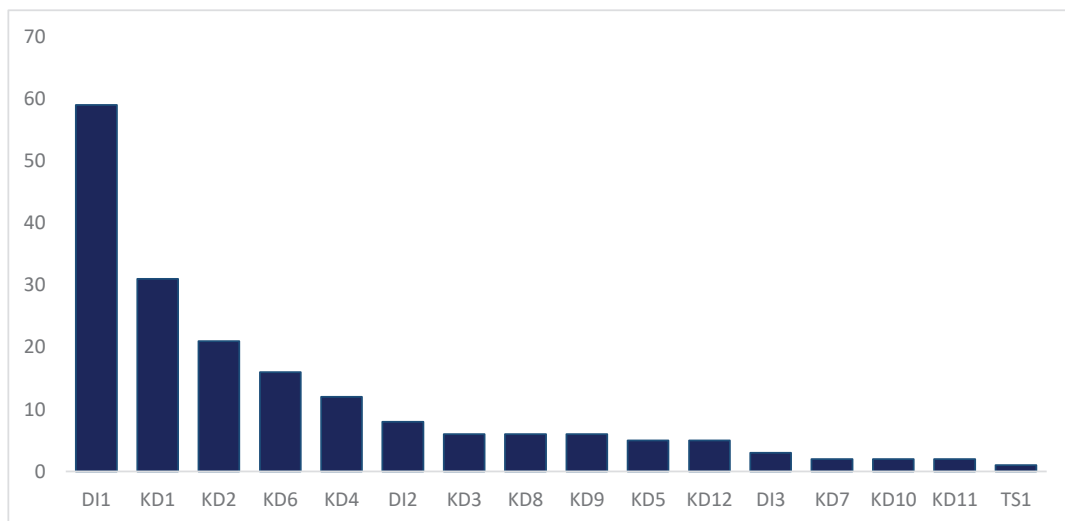
Participant code	Participant category	Position	Sector
KD1	Key decision maker	Managing director	Logistics
KD2	Key decision maker	CEO	Financial Technology
KD3	Key decision maker	Managing director	Technology
KD4	Key decision maker	CEO	Automotive
KD5	Key decision maker	Former CEO	Apparel
KD6	Key decision maker	COO	Financial Technology
KD7	Key decision maker	CIO	Investments
KD8	Key decision maker	CIO	Financial Technology
KD9	Key decision maker	CEO	Management Consulting
KD10	Key decision maker	CIO	Logistics
KD11	Key decision maker	Board chairman	Apparel

Participant code	Participant category	Position	Sector
KD12	Key decision maker	CFO	Apparel
DI1	Dedicated investor	Principal	Investment fund
DI2	Dedicated investor	Managing director	Private equity
DI3	Dedicated investor	Principal	Private equity
TS1	Digital technology Expert	Managing director	Internet Technology

Note. Author's own.

Interviews were designed to facilitate an open dialogue. During the interview process, data saturation was tested every three interviews, through the observing of new insights from experiences on companies across the various sectors. In line with principles of a qualitative study (Boddy, 2016; Fusch & Ness, 2015; Palinkas et al., 2015), interviews were conducted until theoretical saturation was achieved. The theoretical saturation point was achieved when no new additional insights were obtained from the interviews. As per Figure 5 below, no new themes were observed by the twelfth interview, indicative of saturation.

Figure 5: Saturation Chart



Author's own

4.9. Research instrument and data collection

The research instrument used to collect data for the proposed qualitative study was in-depth interviews (Creswell, 2007). Semi-structured one-on-one face to face interviews were used to gain deep insight in the researcher's exploratory study (Saunders et al., 2007). Where face-to-face interviews were not possible due to Covid-19 concerns, virtual video interviews were conducted mainly via Microsoft Teams or Zoom. Interviews lasted for approximately 45 minutes to 70 minutes, with the first 5 to 10 minutes of the conversations being on introductions. Interviews were conducted from September 2022 to November 2022. The interviews were scheduled based on the participant's availability. The researcher recorded the interviews with permission from participants.

The interview questions were guided by the constructs of the primary research question and subordinate research questions (Saunders et al., 2007). The interview questions were open ended to enable the participants to share their lived experience through their own lens (Saunders et al., 2007). Two separate interview guides were prepared for the interviews with key decision makers (refer to Appendix 7.3.1) and dedicated institutional investors (refer to Appendix 7.3.2).

With the permission of the interviewees, the interviews were recorded and transcribed (Cypress, 2018). Microsoft Teams and Microsoft Voice Capture were used for recording. A two phased transcription process was used. The audio recordings were initially transcribed using a software, Otter. Thereafter, the researcher reviewed the transcripts for spelling errors, incorrect punctuations, etc. The type of data that was collected was qualitative data. Rigour was applied during the transcription process to ensure that the original nature of the verbal account is maintained (Braun & Clarke, 2006).

4.10. Data analysis and interpretation approach

The qualitative data from this study was analysed on ATLAS Ti software where each transcript was coded, themes were identified, and the identified themes were analysed and reported (Cypress, 2018). This was achieved through leveraging Braun & Clarke's (2006) six phase guideline for performing a qualitative thematic analysis which is as follows:

- Phase one: The researcher familiarised herself with the collected data by reading through the transcribed data to look for meanings at least once prior to coding the data.
- Phase two: Initial codes will be produced through categorization of the data into meaningful groups. Coding was done on ATLAS Ti.
- Phase three: The coded data was used to identify themes.

- Phase four: The identified themes were refined and reviewed.
- Phase five: A detailed analysis of each reviewed theme was performed. The themes were analysed in relation to each other and the research question.
- Phase six: A concise, coherent, logical and non-repetitive report of the themes were compiled and are included in the researcher's final report.

To ensure anonymity during data analysis, participants were assigned numbers. Direct quotes were anonymised. The file containing the mapping of participant names and anonymity numbers is password protected.

The data analysis process was iterative between the data collected and the data analysis, categorising and structuring the transcribed data around the related research questions and the related components of the research conceptual framework inductively. Themes were identified as they emerged and were classified based on the research questions on the ATLAS Ti tool into first layer themes.

This study utilised qualitative content analysis to interpret the content of text data subjectively through a systematic classification process of coding and identifying themes or patterns (Hsieh, Shannon & Shanonn, 2005). Furthermore, the analysis consolidated the first layer theme into 2nd layer themes, which formed the basis of data analysis and interpretation. To ensure data synthesis, this study adopted the approach by (Nginya, 2016), to ensure that the original thoughts and views of the participants were not lost in the disaggregation process and was traced back to their original data. The themes that emerged were then used to amend the conceptual framework and facilitated an additional and comprehensive literature review and data interpretation.

4.11. Data quality

The alternative criteria for evaluating qualitative research was used to establish and assess quality of the research in this study and it assesses the trustworthiness and authenticity of the study (Bell et al., 2019). The researcher pilot tested the interview questions and adjust accordingly to ensure instrument rigour (Saunders et al., 2007). Rigour was applied in the data transcription process and the analysis of transcripts. Triangulation with dedicated institutional investor representatives and the digital technology expert was used as part of assessing the credibility element of trustworthiness.

4.12. Validity and reliability

Trustworthiness refers to data validity and reliability (Fusch & Ness, 2015). Data validity and reliability are adversely impacted by an inability to achieve data saturation, inadequate sample size and an inappropriate sample (Fusch & Ness, 2015). Through the sample selection, data collection and data analysis processes, the research sought to achieve data validity and reliability.

4.13. Researcher bias

Researcher bias occurs when the researcher incorporates their personal worldview during the data collection and/or data analysis process (Fusch & Ness, 2015; Saunders et al., 2007). Researcher bias can be intentional or unintentional (Fusch & Ness, 2015).

The purposive sample method may also contribute to the researcher bias as it is not a random sampling method (Fusch & Ness, 2015). Researcher bias may lead to a novice researcher being unable to recognize the impact of their personal bias on determining whether data saturation has been reached (Fusch & Ness, 2015).

Given that the researcher works for a private equity fund manager, which is a dedicated institutional investor, there were personal biases which could have unduly influenced the data collection and interpretation process. These were mitigated as follows: through the researcher being objective, neutral, not ask leading questions, and including participants in the study that the researcher has not interacted with prior the study. These mitigants are more critical given that the researcher is a novice qualitative researcher and may not easily recognise their own research bias (Fusch & Ness, 2015).

The final topic is confirmability, which is concerned with the researcher's objectivity and partiality (Bell et al., 2019). This was dealt with by looking out for any bias that could manifest itself throughout data collecting. Bias may be present throughout the development of the study's questions, the creation of the interview guide, the conduct of the interviews, and the analysis and interpretation of the data. This was addressed by ensuring that research questions are derived from the literature, carrying out a pilot interview to eliminate any bias in the way questions are compiled, adhering to strict interview protocols when conducting the study, and using the participant's data to derive results in accordance with protocols covered in section.

4.14. Triangulation

A term coined by Denzin in 1970, triangulation refers to the use of multiple data sources for data collection and analysis (Cypress, 2018; Fusch & Ness, 2015). Triangulation enhances data reliability and saturation (Cypress, 2018; Fusch & Ness, 2015).

Triangulation was achieved in this study by interviewing dedicated investor representatives and the digital technology expert to corroborate or contrast findings from interviews with key decision makers.

4.15. Data storage

To maintain confidentiality of the collected data (Cypress, 2018), data was be stored in password protected files on Dropbox and Microsoft OneDrive and for the purposed of continued access on google drive which will be password protected and only accessed by the researcher.

4.16. Limitations of research design and methods

Findings are not generalisable and are limited to the impact of the interaction between dedicated investors and key decision makers of selected SA private firms that are owned by dedicated institutional investors and have embarked on a decision-making process for long-term digital transformation strategic decisions with uncertain outcomes.

This study is the researcher's first qualitative study. The researcher's limited experience in qualitative studies could heighten the researcher bias risk. The nature of qualitative research has an inherent risk for participant bias, in addition to time constraints and the limited skill of the research. The qualitative study required adequate time due to the expected depth exploration of the phenomenon. Researcher bias mitigants to be utilised are described in section 4.13 above.

4.17. Ethical considerations

The researcher upheld good ethics throughout the research process. Prior to commencing the data collection process, the researcher completed and submitted the ethical clearance application form, and obtain ethical clearance from the Master's Research Ethics Committee of GIBS. The researcher also obtained consent from participant prior to the interview and disclose that participants had the option to withdraw at any time during the interview process. Confidentiality of the participants and the organisations' information is continuously be maintained. Anonymity was maintained through codifying participants and their organisation names. Collected data is stored in a password protected file.

Chapter 5

5. Presentation of findings

5.1. Introduction

The findings from the 16 interviews are presented in this chapter 5 along with a summary of the interview process, a profile of the interviewees, and the data coding procedure. The findings have been arranged into themes and presented under the respective research question they speak to.

5.2. Description of the interviews and participant profiles

The researcher used her own network, the SAVCA website and snowballing to access the participants. The 16 participants comprised of 12 key decision makers, three dedicated investors and one digital technology expert. Profiles of the participants are summarised in Chapter 4.

5.3. The coding processes

The transcribed interviews were coded in a qualitative analysis software, Atlas Ti. A total of 220 first codes were initially developed. These were refined to 185 first order codes. The first order codes were categorised into 54 second order categories. The second order categories were grouped into 14 themes as per the funnel below.

Figure 6: Themes

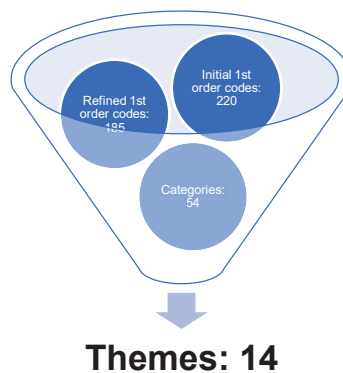


Table 2 below shows the process that was used to arrive at the themes. In the presentation of findings below, a table with code categories and themes for each Research Sub-question is presented. The first order codes are presented in **Appendix 1**

Table 2: Summary of the results of the coding process

Initial Codes	Category	Theme
Refer to appendix A	Research sub-question 1: Why do investee companies pursue digital transformation?	
	<i>Research sub-question 1(a): What do investee companies understand by digital transformation?</i>	
	Responding to a changing world and staying relevant	Responding to a changing world by using digital technology for value creating transformation
	Using technology as a tool	
	Transforming the organisation across the different functions	
	Ensuring value creation	
	Aligned with organisational strategy	Core to an organisation's strategy
	Strategic decisions require capital	
	<i>Research sub-question 1(b): What are the key drivers of digital transformation from the perspective of investee companies?</i>	
	Competitive advantage and competitive differentiation	A customer centric approach for market share protection or gain, and new revenue streams
	Customer centricity	
	Defend existing market share, grow market share, and/or generate new revenue streams	
	It is a business imperative and failure to adopt digital transformation can pose an existential threat.	
	Automation, digitalisation, data analytics, Information accuracy and integration of systems	Integrated, cheaper, better, faster, safer and scalable processes free up employees to focus on higher level activities
	Cheaper, safer, faster, better, scalable, flexible and integrated processes, and systems	
	Employees can focus on high level tasks and machines on operational lower level tasks	
	Desire and willingness of investee companies	Other factors that influence adoption
	External factors	
	Other investee company specific factors	
	Research Sub-question 2: What factors influence the key decision makers during the digital transformation decision making process?	
	Unchartered territory and uncertainty	Uncertainty drives resistance to change
	Resistance to change	
	Fear of the unknown	
	Other factors that drive resistance to change	
	No impact on fixed remuneration	Financial incentives and career prospects
	Indirect link to performance based incentives	
	Appropriate incentive structure	
	Wealth creation	
	Impact on career prospects	Behavioural and emotional factors, and regulation mechanisms
	Impact of personality, seniority and skill on decision making	
	Impact of emotions on decision making	
	Regulation mechanisms	Organisational culture
	Innovation and growth culture	
	Alignment of culture with digital transformation objectives	
	Collaborative culture	
	Research Sub-question 3: How can dedicated institutional investors assist investee companies to pursue digital transformation?	
	Identifying differences	Identifying and addressing differences in understanding
	Addressing differences in understanding	
	A non-executive guidance and advisory role	Playing a guidance and advisory role
	Leveraging investor skills, competence, networks, investment experience, and industry knowledge	
	Stakeholders	Assessment of proposals, approval of decisions, allocation of capital
	Step 1: idea generation	
Step 2: Gather relevant information		
Step 3: Compiling a business case - include business rationale		
Step 3: Business case components - Revenue, cost, valuation and return analysis		
Step 3: Business case components - Qualitative considerations		
Step 3: Business case components - Opportunity cost analysis		
Step 4 & 5 (Part 1): Evaluation supporting evidence		
Step 4 & 5 (Part 2): Internal committee/forum approvals and Board approval		
Step 6: Resource allocation and availability		
Step 7: Monitoring and valuation	Encourage digital transformation uncertainty/risk management	
Risk identification and classification		
Risk assessment & Risk appetite		
Risk mitigation		
Risk monitoring and reporting	Stakeholder buy-in and change management	
People centricity		
Stakeholder buy-in and alignment		
Change management		

Note. Author's own.

5.4. Presentation of findings

5.4.1. Research sub-question 1

Research sub-question 1 sought to understand the reasons that investee companies adopt digital transformation. This was achieved by exploring the investees' understanding of the notion of digital transformation and their understanding of the key drivers of digital transformation. Research Sub-question 1 was thus addressed through the following questions:

- (iii) What do investee companies understand by the term digital transformation?
- (iv) What are the key drivers of digital transformation from the perspective of investee companies?

5.4.1.1. Findings for Research Sub-question 1(a): The investee companies' understanding of digital transformation

Two key themes that emerged from the responses are discussed below.

5.4.1.1.1. Responding to a changing world by using digital technology for value creating transformation

The theme of responding to a changing world by using technology for value creating transformation was the most frequently mentioned theme of the two themes that emerged for Research Sub-question 1(a). The development of the theme was informed by the following four elements (theme elements) which jointly make up the theme

Responding to a changing world

Most key decision makers indicated that there changes in the external environment of investee companies. Examples of changes include increasing access to the internet, technological advancements, changing consumer preference, and an increasing demand for convenience. Most of these changes are underpinned by digital technologies. Some key decision makers stressed that these changes are rapid and necessitate adaptation of investee company businesses. Below are key decision maker illustrative quotes that provide evidence to the theme element:

KD3: “the world around us is changing. ... has made digital technologies ... accessible ... As a result, these technologies are transforming the way business gets done. ... You've got these changing consumer behaviors, [people] want an omni channel approach if you want to deal with them.”

KD1: *"... [adopting digital transformation] certainly is non-negotiable. The world just changes so quickly."*

Dedicated institutional investors and the digital technology expert echoed the remarks of the key decision makers on the changing external environment. Some dedicated investors indicated that their portfolio companies have not kept up with the rapid changes in the environment, and that in fact most are focused on digitalisation and not digital transformation. Below are dedicated investor and digital technology expert illustrative quotes that provide evidence to the theme element:

DI3: *"probably not [been] as quick as what [they] would have [hoped for] ... most companies are focusing on ... digitalisation as opposed to digital transformation ... adapting the current business for the new ways of doing business."*

TS1: *"... to ensure that .. I stay relevant..."*

Using technology as a tool

The findings of the study illustrate that investee companies are using digital technology tools to transform their businesses. Most key decision makers regard technology as merely a tool whose true value is determined by how it is used. Technology can be used to create a digital product offering or to deliver on the existing non-digital product, the latter was the case for most investee companies. Some key decision makers claimed that digital transformation has become synonymous with business transformation as technology is pervasive in business transformation initiatives. The key dedicated investors and digital technology expert shared the same sentiments as key decision makers. Supporting evidence from all three groups is presented below.

KD3: *"Technology is going to be technology. ... it's how you think about it and the opportunities that are non-traditional"....*

KD11: *"... there's no digital transformation, it is just business transformation. It's almost impossible to find ... business transformation that hasn't got some element of digital engagement and digital activity..."*

KD2: *"it's not necessarily about creating the digital product, it may be using digital as a means to deliver [sic] on those projects, or products."*

DI1: "... is **just a tool** happens to be [a] technology-based tool that **can be used for good or bad depending on the user's behaviour.**"

TS1: " I'm **purely an [sic] enabler ...**"

The next element of this theme presents findings that illustrate the end goal utilising technology for business transformation.

Ensuring value creation

The goal of digital transformation according to most key decision makers is value creation which includes solving a pain point for stakeholders. The data demonstrates strong support of the value creation goal by dedicated investors with each dedicated having mentioned value creation at least three times. Amongst other metrics, dedicated investors use return on investment (ROI) as a primary value measurement metric and projects with unacceptable ROIs are not approved. The "how" of value generation, according to certain dedicated investors, is a crucial factor in making a digital transformation investment decision. The digital technology expert did not opine on this sub element in the context of investee companies as he is not privy internal investee company discussions. Below are illustrative quotes for evidence on the value creation theme.

KD1: "*seduced by digital transformation ... beautiful IT development ... **but it actually adds no value.***"

KD3: "*... digital technologies ... **have real world uses now in terms of solving big problems.***"

DI1: "*... your conversion rates might be completely out of kilter. So, it's **not an appropriate platform from an ROI perspective.***"

DI2: "*formulate as part of the investment thesis **how we're going to drive value creation.***"

Transforming the organisation across the different functions

Most key decision makers indicated that the transformation is organisation wide and is not confined to the information technology (IT) department. Dedicated investors shared the same sentiments. Some participants alluded to organisational structures of

incumbents rendering them less flexible than those of new entrants. Illustrative quotes are presented as evidence below.

KD3: *“use of digital technologies to transform a business in all its aspects...”*

KD8: *“Businesses are being disrupted by agile startup companies who do not have the technical debt and operational debt that many large organizations have.”*

DI1: *“...less about “Am I in the IT space”. It’s a horizontal insofar as it can be applied to the HR space, ... operations, ... marketing... finance...”*

DI2: *“South African business models, systems, processes and people are archaic terms of how they’ve designed their business models, technology, and ... organograms.”*

Theme conclusion

Based on the findings, digital transformation is a process of adapting to changes that are underpinned by digital disruption. This is achieved by using digital technology to transform the value creation process across all aspects of the organisation. A digital technology is just a tool which derives its value based on its utilisation. Most participants regard digital transformation as a business imperative.

Below is a diagrammatic representation of the theme of Responding to a changing world by using technology for value creating transformation.

5.4.1.1.2. Digital transformation is core to an organisation’s strategy

The theme of digital transformation being core to an organisation’s strategy emerged from the following theme elements which will be discussed in the sections below:

- Enabler of strategy
- Aligned with strategic objectives of an organisation
- Requires capital commitment

Core to an organisation’s strategy

Most participants indicated that digital transformation is not the main business strategy of their investee firms, it is a key enabler of the business strategy. The investment strategy of one of the dedicated investors is targeting investee companies that have

digital transformation strategies or have potential to adopt. Some key decision-makers asserted that without digital transformation, their investee firms would be unable to execute most of their strategic ambitions. In contrast, most dedicated investors indicated that their investee companies are at varying stages of implementation with some of them still at an early stage of implementation. The product offering of most of the investee companies with digital transformation as an enabler of the business strategy is non-digital. In contrast, almost all the investee companies with digital transformation as their strategy sell digital products. Illustrative quotes are presented as evidence below:

KD1:“...*digital transformation in itself is not my strategy. Digital transformation is enabling me... The [business] strategy remains... for "90% of the new strategic investment initiatives, without digital transformation, you are actually not even in operational [on] your contract...*”

DI2: “*we look for acquisition targets that have digital transformation strategies or have potential to adopt a digital transformation strategy...*”

Requires capital commitment

Most key decision makers indicated that digital transformation initiatives require an allocation of resources including financial resources and human capital. The total required capital commitment can be a sizeable portion of the investee company’s budget. In some cases, a significant portion of that capital is required upfront, while the payback period back-ended and the pay-off period is in the long term. This was further corroborated by dedicated investors with some indicating slower than expected implementation of digital transformation initiatives in some investees due to funding constraints. Illustrative quotes are presented as evidence below.

KD8: “*So a [digital transformation] strategic decision would be to invest a significant portion of [sic] your budget for... new data platforms, skills ...*”

KD6:“*Some of these digital transformation journeys do cost a lot in terms of the initial investment, but it's obviously it's got the return on that, in terms of its payback period.*”

DI3: “*... it's probably not as quick as what we would have ... hoped, ... and we need to be patient because ... it also requires capital.*”

Theme conclusion

Based on the findings of this study, digital transformation is a key enabler of strategy for most investee companies that are mainly incumbents with a non-digital core offering. In selected cases, and mainly for investee companies with a digital core-offering, digital transformation is the main business strategy. Investee companies are on different digital transformation maturity levels with their reliance on digital transformation being on varying degrees. In addition, digital transformation initiatives can require significant financial resources with investment cost if front loaded and a pay-off period that is long and back-ended.

5.4.1.2. Research Sub-question 1(b): Drivers of digital transformation from an investee company's perspective

The following themes emerged for research sub-question 1(b)

5.4.1.2.1. A customer centric approach for market share protection or gain, and new revenue streams

Most participants indicated that digital disruption is contributing to intensifying competitive pressure and changing consumer behaviour. To remain competitive, adoption of digital transformation is a business imperative and failure to do so could pose an existential threat. Customer centricity is central to defending the existing market share, and for new growth opportunities. An interesting insight from participant KD4 was his claim that competitive advantage stems from people and culture, and not digital transformation. KD4 also said that some products are developed purely for defending market share and are not monetised. Illustrative quotes are shown below.

KD8: " *To get a transient advantage, ... it's been forced on companies to adopt digital transformation. It's essential for the survival ... to stay competitive... [and] for moving into new markets ...*"

DI1: "*In both instances, if you didn't pivot, there was a huge downside risk.*"

TS1: "*...ensure that we are customer centric.*"

KD4, "*people and culture are the business' sole sustainable competitive advantage. Everything else is copyable*".

Theme conclusion

Based on the finding's investee companies can look to customer centric digital transformation initiatives that protect or grow the existing market share or generate new revenue streams. In contrast, one key decision maker cited people and culture as their main source of competitive advantage.

5.4.1.2.2. Integrated, cheaper, better, faster, safer and scalable processes free up employees to focus on higher level activities

This theme comprises of the following theme elements that merged from the finding of this study.

Automation, digitalisation, data analytics, Information accuracy and integration of systems

All groups of participants agreed that digital technologies are used for automation, digitalisation, generation of more accurate information and data analytics, and integration of systems and processes. Some illustrative quotes are presented below.

KD12: *"So if you've got **one system, one platform that in an automated way...you've got quicker access to more accurate information. ...**"*

DI3: *"...the **benefits of trying to digitise this process.**"*

TS1: *"... **improving analytics...**"*

Cheaper, safer, faster, better, more scalable, and more flexible processes and systems

Most participants indicated that digital transformation initiatives lead to cost savings, improved efficiencies, safer, improved productivity, more scalability, improved flexibility and better integration of systems and processes. Some key decision makers highlighted that cost savings are achieved over time. Illustrative quotes are presented below.

KD11: *"digital transformation decisions **talk to cheaper, faster and better.**"*

DI2: *"South African business **models, systems, processes and people organograms are archaic.**"*

KD4: “ ... we would *initially have an increase in our cost base*, because we would be running a magazine [and an online] marketplace [in parallel]...”

TS1: “ ...ensuring that *data is safe*, ...and then *improving ... efficiencies*.”

Employees can focus on high level tasks and machines on operational lower-level tasks

Based on the responses, all participant groups indicated that digital transformation enables human resources to concentrate on the more strategic and higher-level thinking activities while machines focus on the more operational, repetitive, and routine activities. Participant illustrative quotes are shown below.

KD8: “I’ll use the concept of *human computer hybridity*, where the *human workforce can focus on higher level tasks, ...more thinking work and strategic work*, and the *machines can do the operational, heavy lifting and number crunching...*”

DI2: “ *CEO, financial director, divisional managers, HR, and the chief technology officer becomes more of strategic roles.*”

TS1: “*I can’t manage your business better than [you]... I’m purely an enabler.*”

Theme conclusion

In conclusion, all participant groups agree that digital transformation drives cheaper, safer, faster, better, scalable, flexible, and integrated processes, and systems. Improved processes enable human resources to focus on strategic and higher thinking work, and for the machines to concentrate on routine, repetitive and low-level thinking activities.

5.4.1.2.3. Other factors that influence adoption

The theme comprises of the following theme elements that emerged from the findings of this study:

- Desire and willingness of investee companies
- External factors
- Other investee company specific factors

Desire and willingness of investee companies

All participants agreed that there is willingness and a desire from investee companies to pursue digital transformation. Covid accelerated the willingness and actual adoption rate of digital transformation by investee companies. The majority of the participants agreed that the concern is now on the how to implement and the related execution risks. Illustrative quotes are shown below

KD3: *"...why tends to be well understood. Everyone's looking to the how...."*

DI2: *"... digital transformation needed to happen, and it was obvious in both cases. How it was going to happen was the focus of the debate."*

TS1: *" If wasn't for COVID, ... a lot of organisations wouldn't have ... transitioned from that on premise into the cloud."*

Other external factors

Some key decision makers argued that industry specific factors, market maturity and SA macro-economic factors also affect the adoption of digital transformation. Dedicated investors echoed this view. Illustrative quotes are shown below.

KD9: *"... COVID, ... the power [problem], ... unemployment, ... [and other] external challenges slowed the process"*

KD8: *"... too early to market. ... industry was [sic] not mature enough..."*

DI1: *"For some businesses that ... require lower degrees of technology deployment for digitisation, ... less imperative for us to drive uptake ..."*

Other investee company specific factors

When asked about factors that influence adoption, some participants indicated other investee organisation specific factors such as availability of resources, organisational culture, life stage and maturity of a company. Illustrative quotes are presented below.

KD2: *"...relates very much to the culture of the organization and the life stage of the organisation."*

Theme conclusion

All participants agreed that investee firms have a desire and willingness to pursue digital transformation. COVID accelerated the adoption rate of digital transformation. Concerns arise, and divergent views emerge when the execution method is discussed. Macro-environment, industry and investee company specific factors can affect adoption.

Conclusion for Research Sub-question 1

Research sub-question 1 sought to understand the reasons that investee companies adopt digital transformation. This was achieved by exploring the investees' understanding of digital transformation and the key drivers thereof. Based on the findings presented above, there is a participants agree that digital transformation relates responding to a changing world by using technology for value creating transformation. The key drivers of digital transformation from an investee's perspective are as follows:

- Integrated, cheaper, better, faster, safer, and scalable processes that free up employees to focus on higher level activities.
- A customer centric approach for market share protection or gain, and new revenue streams.
- Other factors that influence the adoption of digital transformation.

5.4.2. Research Sub-question 2: Factors influence the key decision makers during the digital transformation decision-making process

Findings of this study show that there are four broad themes that emerged.

5.4.2.1. Uncertainty drives resistance to change

The emerged from the related elements that are presented below.

Uncertainty of outcomes

Most participants indicated that the outcomes of digital transformation initiatives can be highly uncertain as digital transformation is an uncharted territory, prospective client and user acceptance is not known upfront and limited information sharing by industry first movers. In contrast, the was a small number of participants that alluded to uncertainty of outcomes not being unique to digital transformation initiatives, but rather present for all strategic initiatives pursued by an investee company. Uncertainty of outcomes can result in a fear of risk taking. Illustrative quotes are presented as evidence below.

KD1: "... often *putting your toes into waters you've never been in before*. ... going into a world where you *have no idea how the public is going to react*... The guys that went *first are not sharing the information*."

DI1: "but you're *not necessarily certain that the enhancement will arrive*, and *your staff might adopt it while the clients might not*."

KD3: "... *uncertainty* ... brings up an element of *fear or risk taking* ..."

Fear of the unknown

When asked about factors that drive resistance to digital transformation change most decision makers and dedicated investors cited people's fear of change, fear of failure, fear of job loss and fear of cyber security risk. Some participants indicated that this fear of failure may adversely affect innovation. Below are illustrative quotes.

KD2: "... relates very much just to people's general *fear of change*."

DI2: "*People are deeply uncomfortable with change*. brings up all sorts of emotions and insecurity. ... *Humans are the biggest risk to change*."

KD3: "... *fear of failure* ... stagnates the innovation culture..."

Other factors that drive resistance to change

Other reasons provided by participants as reasons for resistance to change include negative perceptions about digital transformation, scepticism about the potential success of digital transformation, country specific challenges that may pose an execution risk, and in circumstances where digital transformation initiatives are in conflict with existing priorities. Illustrative quotes with some of these reasons are presented below.

Theme conclusion

Most participants agree that the outcomes of digital transformation can be highly uncertain. In contrast, some participants indicated that uncertainty is not unique to digital transformation. Uncertainty can result in fear of embarking on digital transformation initiatives. Fear and other factors drive resistance to change.

5.4.2.2. Financial incentives and career opportunities

All participants indicated that the success or failure of a digital transformation does not affect their existing guaranteed remuneration. The outcomes do however have an indirect impact on the performance linked remuneration of key decision makers. All participants indicated that success of a digital transformation initiative has a positive impact on career prospects. There were divergent responses on the impact of failure on career prospects. Most participant indicated that failure of an initiative does not have a negative impact on their career so long as the key decision maker terminates a failing initiative early enough to minimise the loss and the investors are growth minded with some tolerance for failure. A small number of participants stated that failure of a digital transformation initiative has led to job loss. Illustrative quotes are presented below.

KD6: *" So, it may **not necessarily affect your salary**, ... could have an **impact** in terms of what is deemed as a **bonus**."*

KD2: *" , if there is success in that, it would be positive both from a career growth perspective, and a compensation perspective for the CEO. ... prevailing **culture** through our own shareholders... **wouldn't impact one's career growth if it didn't succeed**, so long as ... you recognised ... it wasn't succeeding **early enough and took measures**..."*

DI2: *" In the **unsuccessful project**, ... disruption to trade for six months. ... **seven executives** who were involved in the project were **released of their duties**."*

When asked about how does the compensation structure and career prospects post a failed initiative affect type of decisions they pursue, most key decision makers stated that it doesn't affect their decision-making as digital transformation is one of multiple performance measurement metrics. In addition, some key decision makers stated that having equity ownership in the business evolved their mindset to thinking like owners and thus seek to pursue decisions that are beneficial for the business in the long term rather than thinking of just their incentives. Illustrative quotes are presented below.

KD4: *"**With skin in the game [equity ownership for management], your career is not front and center**..."*

5.4.2.3. Behavioural and emotional factors, and regulation mechanisms

The theme comprises of the elements presented below that emerged from findings.

Impact of personality, seniority and skill on decision-making

The majority of the participants said that personality, seniority and skill affects decision-making with more vocal, more senior team members and people with the perceived appropriate digital transformation skill having more influence on the decision. In contrast, a minority of key decision makers indicated that the culture of their organisations promotes equality with no one individual having more influence than others. In addition, some dedicated investors indicated that they independently validate the views of the senior members through external and internal corroborating evidence. Illustrative quotes are presented below.

KD8: " *There are power dynamics ... people with **strong personalities and perceived hierarchical positions** [sic] ... have ... a power imbalance.*"

KD2: "At the end of the day when you have a leader of a business, the **leader's personal views and behaviours are heavily going to influence** the way they run the business and the way they drive certain things and certain decisions."

DI1: "...the COO has ... **more gravitas ... than the CEO because he is ... closer to the business** in terms of the strategy and what it needs to succeed."

KD7: "Everybody is diffused very quickly to understand that **we are all somewhat equal here, and there is no power dynamics that are at play, or politics that are at play, because we are all focused on the same goal.**"

DI2: "... I would normally **read body language particularly with the junior people, and then you get a sense whether they are fully supportive or just going with the ride...**"

Impact of emotions on decision-making

Most participants agreed that negative emotions such as disappointment are observed when project proposals assumptions are questioned or there are disagreements., and excitement from project sponsors who are passionate about their proposals or when potential benefits of an initiative are discussed. Most participants agree that too much

emotion (positive or negative) may result in a wrong decision being made. Illustrative quotes on the impact of emotions on decision-making are presented below.

KD4: *“Quite often when things **get way too emotional, the right decisions are not going to be made whether positively or not.**”*

KD3: *“I normally see **excitement ... when you start talking about the potential benefits of digital transformation.**”*

DI2: *“When there is an **open disagreement between the executives in a board meeting.** You can see the **negative emotions ... [also] when you start pushing back on assumptions...**”*

Regulation mechanisms

The majority of the participants indicated that the negative impact of emotions and behaviour is regulated through governance structures, although there is an expectation for individuals to self-regulate. Based on the responses, governance structures that are in place at most investee companies include approval committees, rigorous interrogation of the proposal and a chair of meetings to manage the conversation. Illustrative quotes for this element are presented below.

KD1: *“You would hope that there's a level of **maturity in these teams that specifically at a high level, they could self-moderate ...**”*

DI2: *“The **chairperson must manage the meeting and the discussions so that people don't get overly excited in either direction.**”*

Theme conclusion

The findings of this study illustrate that all participant groups agree that personality, seniority, perceived expertise, and emotions can affect the decision-making process. While there is an expectation for individuals to self-regulate, there are governance structures put in place to mitigate the adverse impact of these factors on the decision-making process.

5.4.2.4. Organisational culture

The theme comprises of the following elements that emerged from the findings.

Role of culture in digital transformation

Most participants said that the culture of an investee company plays a crucial role in digital transformation and that the culture of the investee organisation must be conducive for change and aligned with digital transformation objectives. Some key decision makers further stated that the culture of an organisation is mainly within the influence of the executive leadership team, and not necessarily the board or dedicated investors. This contrasts with some key decision makers who stated that the appropriate culture need to start at the shareholder level.

KD4: *"Then we also needed to change the culture inside the company ... transparent about the vision ..."*

DI3: *"... culture and making sure there's buy-in from the organisation..."*

KD8: *"From my experience the culture is more within the influence of the employees of the organisation and the leaders there. ... and not investors."*

Innovation and growth culture

All participant groups indicated that a conducive culture for digital transformation promotes innovation and growth. A collaborative, innovative and growth culture allows for continuous experimentation and learning. This notion was captured by key decision makers in phrases such as "fail-fast", "trial and error", "agile approach", and "implement in small chunks". Some dedicated investors acknowledged that they need to be better at facilitating an experimentation oriented culture. Below are illustrative quotes.

KD3: *" Companies have got to get comfortable with the idea of experimenting, which means failing and fixing quickly. ..."*

KD8: *" culture that's innovative."*

DI3: *"It [trial and error] is something we need to be better at, because I think we do tend to focus on mistakes, maybe even too much. ... done in smaller chunks."*

Collaborative culture

Some key decision makers alluded to collaborative, transparent and inclusive environment being important for innovation. There were some key decision makers who

stated that lack of collaboration across business functions or teams impedes digital transformation which is cross-functional process.

KD4: "... we needed to create a *culture of inclusivity*,"

KD8: "Very *collaborative, open type environments ... breaking down silos between business units because digital transformation ... [is] organisation wide..*"

Theme conclusion

Organisational culture plays a critical role in digital transformation. There were divergent views with some key decision makers stating that organisational culture is largely dependent on executive management and employees. Others highlighted that the appropriate culture starts at the shareholder level. An innovative and growth-oriented culture is conducive for digital transformation success. A collaborative culture bodes well for innovation and is necessary in digital transformation which is a company-wide process.

Conclusion for Research Sub-question 2

Research Sub-question 2 sought to understand factors that influence key decision makers during the digital transformation decision-making process of investee companies. The findings presented in this chapter illustrate that during the decision-making process, decision makers are influenced by factors such as uncertainty of outcomes, financial incentives and career prospects, behavioural and emotional factors, and organisational culture.

5.4.3. Ways that dedicated institutional investors can assist investee companies to pursue digital transformation

The following six themes emerged from the findings of this study.

5.4.3.1. Identifying and addressing differences in understanding

The following two elements that emerged from the findings.

Identifying differences

Some of the participants indicated that differences in the understanding of opportunities between key decision makers and dedicated investors typically stems from a knowledge gap, dedicated investors not having a full understanding of the operations, and the expected return on a digital transformation initiative not meeting investor expectations. Illustrative quotes that provide evidence for this theme are shown below.

KD9: " ...*disconnect in terms of what the investors expected, and what was the reality on the ground.*"

DI1: "*.. a lack of meeting of minds .. investors want to see conversions for every dollar that was spent on marketing and platforms. At the same time, the company often wants to be seen as doing the right things and being noticed in the market...*"

Addressing differences in understanding

The majority of dedicated investors stated that the differences in understanding due to a knowledge gap, dedicated investors proximal distance to the operations are addressed through sharing evidence-based cases, and willingness from both dedicated investors and key decision makers to learn together. Some key decision makers corroborated this finding. Illustrative quotes are presented below.

DI1: "*It's about using an evidence-based approach to show that there's some precedent for portfolio companies that have done digital transformation that has resulted in gains. Otherwise ... international examples or theory.*"

KD2: "*... they [dedicated investors] can cite examples.*"

Theme conclusion

Some participants indicated that understanding of digital transformation initiatives between key decision makers and dedicated investors stem from a gap in knowledge, dedicated investors being far removed from operations and initiatives with sub-optimal returns. The differences can be addressed through evidence-based cases, and willingness to learn.

5.4.3.2. Play a guidance and advisory role

The theme comprises of two elements which are presented below.

A non-executive guidance and advisory role

All participants stated that they play a non-executive guidance and advisory role for investee companies. This role includes reviewing, opining on investee company strategies formulated by executive management and monitoring the performance of the business across the different functions. Dedicated investors delegate executive duties of

an investee company to the executive management team. In addition to delegating executive duties, certain type of investor ownership models such as private equity are more suitable for digital transformation as they are available to be a sounding board for management and keep up to date with operational, financial and strategic performance of an investee company, a concept they referred to as “active management”. Illustrative quotes are presented below.

DI1: *"The board doesn't set strategy so much as it helps to guide strategy. .. The closest people to the business would be the C-suite here, [formulate the strategy]. ... As investors, we are not involved in the day-to-day matters of digital transformation".*

KD4: *" So [the] private equity [investors] involvement was beyond just having a board meeting and ticking a box."*

Leveraging investor skills, competence, networks, investment experience, and industry knowledge

Most participants indicated that as part of dedicated investor's commitment to investee companies, they leverage their skills, competence, networks, investment experience, and industry knowledge for the benefit of investee companies. There were however some investors, albeit being the minority, who expressed disappointment with the limited input of dedicated investors on digital transformation discussions and limited cross pollination of ideas with other portfolio companies of dedicated investors, and more so when the key decision makers themselves did not have experience with digital transformation.

KD2: *"They [dedicated investor] are really providing sufficient guidance and insights around their own industry perspectives and support of the CEO and the leadership team"* <https://go.atlasti.com/ad4effe7-a786-456b-b7c7-dcbc4a2313a7/documents/bba3b42b-ef24-4557-ba52-a687e4184692/quotations/3ec74564-d191-4c00-af5d-4672b334d3bf>

KD5: *" I didn't have somebody to really rely on ... the challenge was, I believed that institutional shareholders had a lot of experience in digital transformation and would be able to bring a lot of their experiences to the company. They didn't."*

KD8: " board member ... **from a technical background will be the board member to engage, support and to guide any specific initiative that is ... large enough for them to be involved in. They don't get involved in all decisions.**"

Some participants highlighted the need for alignment among shareholders where an investee company has multiple shareholders with board representation. Shareholder misalignment impedes the decision-making process.

KD4: "If you have more than one shareholder, ensure that the **shareholders are aligned as misalignment may make for an environment where decisions are harder to make.**"

Theme conclusion

Findings indicated that dedicated investors play a guidance and advisory role, and delegate the executive functions of the business to the executive management. They also leverage their networks, experience, and skills for the benefit of the investee companies. Although in the minority, some key decision makers expressed disappointment with the limited experience and limited networks of dedicated investors in digital transformation. Shareholder misalignment impedes the decision-making process.

5.4.3.3. Assessment of proposals, approval of decisions, allocation of capital

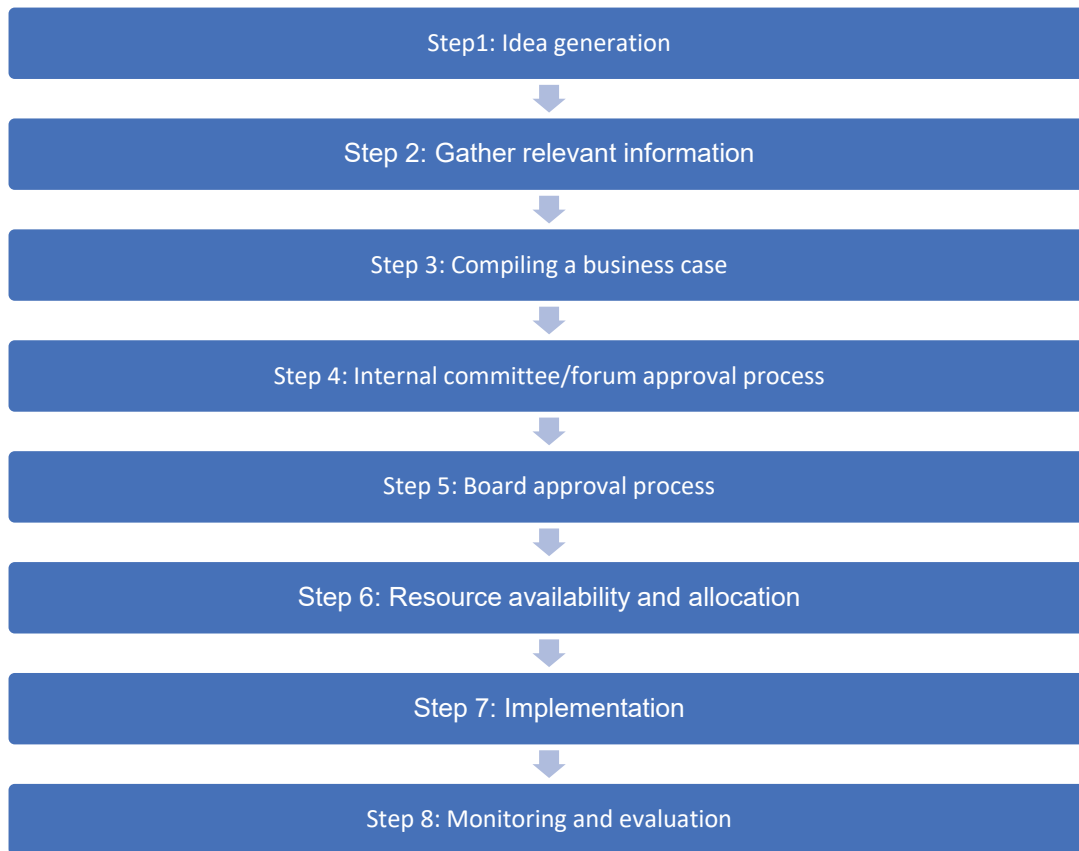
Based on responses from participants, key stakeholders in the digital transformation decision-making process vary depending on the size of the business. Historically they typically included the CEO, chief financial officer, chief operating officer and chief technology officer. More investee companies are including experienced senior human resource professionals to manage the people component of digital transformation. One of the key learnings highlighted by those participants who had experienced a failed digital transformation was a need for a senior experienced resource that can focus purely on the digital transformation initiative until implementation. Illustrative quotes are presented below as evidence.

KD3: "This depends on the portfolio companies and their size. If they're smaller ... CEO directly. ... CEO, CTO, CFO. ... board ..."

D12: "In addition to the CEO, the FD [financial director] is critical, and the COO. ... what we lacked in hindsight, is a chief technology officer and a chief human capital officer."

When asked to describe the digital transformation decision-making process for their investee companies, most participants described a broadly similar process which is summarised in the diagram below. The findings are explained in the sections below.

Figure 7: Summary of the decision-making process of most investee companies



Note. Author's own.

Step 1: Idea generation

All participants stated that digital transformation are mainly generated by people within the investee organisation as they are closer to the operations. It is rare for dedicated investors to be the originators of the ideas. Illustrative quotes are presented below.

KD2: *"So I think we haven't had scenarios where board members have formally presented ideas to us..."*

DI3: *"You do rely on the management teams because they know the business better than you. ... So it must come from the ground up..."*

Step 2: Gathering relevant information

All participants indicated that the key decision makers are responsible for gathering information. Focusing on the relevant information during this process is important. Illustrative quotes are presented below.

KD10: *"There's a lot of information out there, but we try to understand what's needed and how we can be different and then we implement that."*

Step 3: Compiling a business case

Most participants indicated that the key decision makers compile a business case proposal which includes the business rationale, revenue generation and cost savings opportunities (if any), cost benefit and returns analysis, qualitative considerations, risk assessment, opportunity cost analysis, alignment with strategic objectives, execution timeframe, envisaged execution framework, funding structure and sources of funding, and recommendations. Illustrative quotes are presented below.

KD6: *"The important thing is that if there is a **purpose behind the initiative that you're actually driving, and it's linked to the strategic objectives of the organization**".*

KD2: *"... a **supporting business case for that initiative. ... understand, actually what is the objective that we as a business are looking to achieve ...**"*

Step 4: Internal committee/forum approval process & Step 5: Board approval process

Based on the responses from participants, most investee companies have a two-tiered approval process comprising of internal committee/forum approval and a board approval process. The required approval level depends on mainly the cost and risk implications of the initiatives with higher cost and higher risk initiatives requiring both internal and board approvals. Dedicated investors are involved in some internal committees such as the digital transformation steering committee and in the board approval process as non-executive board members.

Digital transformation initiatives are presented by key decision makers at the approval meetings. The approval process entails a rigorous evaluation of the business case and supporting evidence. Stakeholders are required to focus on the merits of the proposal and not the presenter. Discussions on the proposals are an iterative process and occur in both formal and informal settings with the final decisions being made in formal committee and board meetings. Dedicated investors are among some of the stakeholders that will grant approval or reject the proposed initiatives using their delegated authority. Illustrative quotes for the approval process are presented below.

KD8: *"So we also have a **new product approval committee**. And there's **[representatives] from all parts of the business** ... questions ... asked, ... **How much time will this take? Have you cost the skills? .. number of resources that are needed** ... **business case has to make sense** and then whoever's tabled that proposal has the **opportunity to defend it or to take it back and, ... add more rigor to the process.**"*

DI2: *"Then the **board would sit and opine** on firstly, is there a **real risk or opportunity**? If the answer is yes, then the board would consider the proposed solutions to **determine which one is the best on the basis of cost benefit plus probability of success and financial impact**. If there is uncertainty, **management will be sent back to go to further investigations and substantiate the proposals**. ... if the board is happy with the proposals, and the supporting evidence, then the **board makes a decision.**"*

Step 6: Allocation and availability of capital

All participants indicated that dedicated investors are involved in the allocation of capital for approved digital transformation within their approval level as they deliberate and opine on the budget allocation process. Capital includes financial resources, human capital and management capacity. An illustrative quote is presented below.

DI1: *"S ... **great ROI but the point is we had very little confidence on their ability to execute** So it's more of a pipe dream."*

Step 7: Implementation

All participants indicated that dedicated investors are not involved in the day-to-day implementation of digital transformation initiatives.

Step 8: Monitoring and evaluation

The findings of this study illustrate that the involvement of dedicated investors in the monitoring and evaluation process is limited to opining on monitoring and evaluation feedback reported by key decision makers.

KD7: *"So outside of that there is then a process whereby **we get monitored by the IT steering committee** [sic]."*

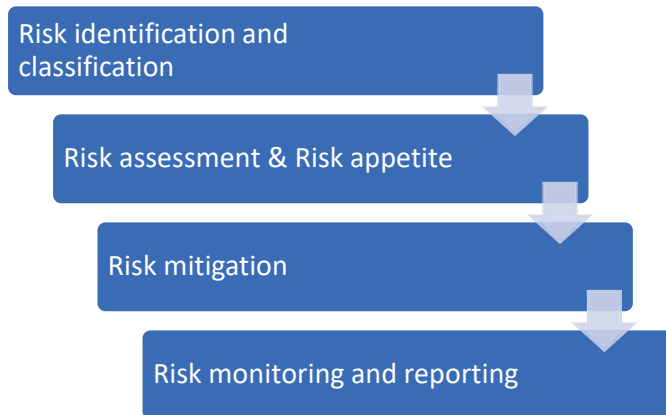
Theme conclusion

Based on the findings of this study, dedicated investors are involved in the rigorous assessments of proposals, approval of decisions using their delegated authority and in the capital allocation decisions for initiatives that fall within their approval thresholds. Dedicated investors have limited to no involvement in idea generation, gathering of relevant information, compiling a business case and implementation of a digital transformation initiatives, which are all activities that are performed by predominantly the executives and employees.

1.7.1.1. Encourage digital transformation uncertainty/risk management

Most participants alluded to the digital transformation process being plagued with uncertainty and highlighted the need for a comprehensive risk management process. Based on responses of participants, the digital transformation risk management process of most investee companies broadly as per the diagram below. Findings that relate to the involvement of dedicated investors in the various steps are presented below.

Figure 8: Summary of the risk management process of most investee companies



Note. Author's own.

Risk identification and classification

Most participants cited execution risk, cyber security, innovation risk, timing delays and changes in technology as the most common digital transformation risks that their portfolio companies face. Cyber security risk was highlighted as the most significant threat as a security breach could threaten the continuation of an investee company's business. Illustrative quotes are presented below.

KD6: "...*The IT security component is a very big part of the digital transformation journey.*"

TS1: "...**concern was [cyber] security.** "

Risk assessment and risk appetite

Most participants indicated that investee companies on a digital transformation journey need to have some level of a risk appetite as there is risk that is inherent in digital transformation initiatives. The risk appetite of dedicated investors which is influenced by the investment time horizon and potential impact of the digital transformation initiative on their potential investment exit value, has an impact on the adoption of digital transformation by investee companies. The risk appetite of dedicated investors reduces as they approach exit. Risk appetite illustrative quotes are shown below.

KD11: "... [investors not granting approval for a digital transformation strategy] in a private equity space in two instances. ... divestment period was too short ... to obtain their required return on investment ... Secondly, where the changeover to the new platform creates too big an operational risk for the private equity investor to undertake when trying to attract a buyer."

There are participants who noted that risk appetites of individuals have an impact on digital transformation initiatives, albeit to a limited extent as decisions are made by a collective. In contrast some participants argued that the relevance of the individual risk appetites diminishes in those instances where digital transformation is imposed by market conditions. An illustrative quote below demonstrates this finding.

DI2: "Probably the single largest factor was that digital transformation needed to happen ... So, by the time we went to the boardroom, personal risk appetites were less relevant... Where we saw risk appetites coming to the fore was on the choice of service providers."

Most participants alluded to the importance of risk assessment in digital transformation as lack of a comprehensive risk assessment process could contribute to implementation failure as was experienced by investee companies of the some of the participants. Dedicated investors are involved in the risk assessment process during the digital transformation process whereby the committee and/or board members are required to evaluate the risk assessment plan with rigour and opine on it. An illustrative quote is shown below.

KD11: "... the team *did not conduct a comprehensive ... risk assessment. This resulted in implementation failure with undesired outcomes.*"

Risk mitigation

Dedicated investors encourage portfolio companies to adopt some of the following risk mitigation procedures which are used by investee companies of most interviewed participants:

- **Staggered implementation techniques:** such as introducing minimum viable products, pilot, and measure results before a full launch, implementing in small incremental changes, an exit strategy for failing initiatives, running both the old and new system in parallel on implementation of the new system.
- **Risk mitigation through adaptation:** lean and agile testing, adapt system as the investee progresses through on digital transformation journey.
- **Other:** a diversified portfolio of initiatives, sharing risk with customers, partnerships.

Illustrative quotes are shown below.

KD11: "*Risk mitigation plans should include **running both the old and new systems concurrently in the early stage of the new system ... The new system ... failed to launch and at that stage there was no backup plan as the old system had already been discontinued. ... unable to trade for 6 months.*"**

DI1: "*we encourage our portfolio companies to be **lean and agile in testing and to fail fast. ... So, it's more measure, pilot, and then see if it works, and then expand. ... Sometimes ... an MVP, a minimum viable product build enough of a product ... to elicit feedback from the market. ... Sometimes you can get a client to pay for it if the client is vested in the process. You can often move faster if you've got a vested partner or capital is willing to take risks with you.*"**

Risk monitoring and reporting

Investee companies monitor and report risk associated with digital transformation.

Theme conclusion

The findings of this study illustrate that risk management is a key consideration in digital transformation. Investee companies pursuing digital transformation are exposed to

various risks including execution and cyber security risk. Cyber security was highlighted as the most significant threat. Lack of a comprehensive risk assessment could result in implementation failure. Risk mitigation procedures vary. Dedicated investors encourage Investee companies to use staggered risk mitigation techniques, risk mitigation through adaptation, sharing risk with customers, and risk mitigation through partnerships. Some participants indicated that investee companies on the digital transformation journey must continuously monitor and report risk management.

1.7.1.2. Stakeholder buy-in and change management

The theme of stakeholder buy-in and change management comprised of the following elements which emerged from findings.

People centricity

All participants indicated that people are a critical component of the digital transformation process. Understanding user (client and internal user) requirements for digital transformation and utilising a human/user centric digital transformation implementation approach is important. The success of a digital transformation initiative requires an investee company to have the right people in terms of skill, competence, aptitude, attitude, and willingness to learn. This may require re-training of some employees and replacing those who are not willing to learn. Some investee companies do not have sufficient financial resources to attract the right level of competence. In some instances, dedicated investors use a portfolio centric approach which entails sourcing digital transformation experts that are outsourced to multiple portfolio companies. Illustrative quotes are presented below.

KD4: *"People and culture are a business's sole sustainable competitive advantage. Everything else is copyable."*

KD2: *"It is making sure that you've got the right people not in terms of attitude but also in terms of ability to learn and an aptitude. When we talk about constraints around resources, those resources don't necessarily refer to funding, but just capacity and people."*

D12: *"... the biggest learning was that we designed new technology for old people and for old users. User acceptance, user training, was probably one of the shortcomings ... As part of the decision-making process, map out the*

people requirements including people to execute the project (internal and external), and people to run the business post implementation."

TS1: *"... taken the people and train them in other areas."*

Stakeholder buy-in and alignment

According to most participants, stakeholder buy-in and alignment is a critical component of digital transformation given the cross-functional nature of digital transformation and importance of people for successful implementation. The buy-in must start at the shareholder level, to employees in the organisation and clients. People must be involved early on in the decision-making, and key decision-makers must communicate the vision early on. Stakeholder management including engaging dedicated investors through both formal and informal discussions. Some people may resist change. Illustrative quotes are presented below.

KD4: *"So we had to start to **create transparency** at the level ... **around the financials, ... the vision and where the company was going**, because **change is difficult to navigate for most people**. ..."*

KD8: *" So digital transformation **can fail terribly if you don't have the buy-in of the workers** ... they will be **concerned that machines will be taking over some of the job functions and they will become redundant**. ... **focus on the people aspect to make sure that people are aware that their time will now be freed up to actually work**."*

DI3: *".... **the biggest reason why these initiatives fail is that there's no buy-in, and people haven't been part of the decision-making and they just feel like it's forced upon them**. ... **people don't like change**. So it's making sure that also that the **management team buys into it** ... **then everyone else needs to buy into it**."*

Change management

Most participants indicated that change management is an enabler of digital transformation. Change management affects "people, processes and technology" and it helps improve the stakeholders understanding of the required change and thus improves stakeholder buy-in. Change management can be implemented by a combination of

internal and external resources. However, internal stakeholders must not neglect change management after external consultants have completed their engagement. Illustrative quotes are presented below.

DI1: "Digital transformation is also about change management ..."

KD6: "change management affects people process and technology... make a change on a process, it could have what I call an upstream or downstream implication. ... Similarly, from a people management perspective, it's about the mindset of why the change, what's in it for them ..."

KD11: "Change management is critical to help the employees prepare and train for the envisaged change and how it impacts how they will perform their jobs. change management can be facilitated by a combination of external professional resources and internal resources."

Theme conclusion

Findings of this study illustrate that people are a critical component of digital transformation. Investee companies need the right people in term of skills, competence, attitude, and aptitude. This can be achieved through a combination of upskilling the existing workforce and hiring new people. Financial constraints can limit an investee companies' ability to attract the right talent.

Findings of this study illustrated that obtaining stakeholder buy-in is crucial for the success of a digital transformation initiative of an investee companies given the cross functional nature of digital transformation and people component of digital transformation. Early involvement of stakeholders and communication of the vision helps with achieving buy-in. Change management is a key enabler of digital transformation as it helps with improving stakeholder buy-in.

Conclusion for Research Sub-question 3

Research Sub-question 3 sought to understand ways that dedicated institutional investors can assist investee companies to pursue digital transformation. The findings of this study illustrate that that dedicated investors can assist investee organisations through:

- Identifying and addressing differences in understanding

- Playing a guidance and advisory role
- Approval of decisions using delegated authority
- Assessment and evaluation of proposals, capital allocation, progress monitoring
- Encourage digital transformation uncertainty/risk management
- Stakeholders buy-in and change management

Chapter 6 – Discussion

6. Discussion

6.1. Introduction

By comparing the findings in Chapter 5 to the literature review in Chapter 2, this chapter provides a discussion of the findings. The findings are presented by research sub-questions and related themes. We conclude with a conceptual framework.

6.2. Discussion of results for research sub-question 1

Research sub-question 1: Why do investee companies pursue digital transformation?

Research sub-question 1(a)

Research sub-question 1(a): What do investee companies understand by digital transformation?

Theme 1: Responding to a changing world by using digital technology for value creating transformation

Participants defined digital transformation as reacting to a rapidly changing business environment by using digital technologies to transform the value creation process of an investee. Adapting to the changing environment is a business imperative. However, investee companies have been slow to adapt with many focusing on digitalisation instead of digital transformation. Digital technologies are merely tools that derive their value from how they are utilised. They can be used to develop a digital product or aid in the execution of a non-digital product, the latter was more prevalent in this study. With the pervasiveness of technology, some participants regard digital transformation as being synonymous with business transformation. The goal of digital transformation is value creation, which dedicated investors measure mainly through ROI. The “how” of value creation was highlighted as a key consideration. The transformation is organisation wide across all aspects of investee companies.

Most definitions of digital transformation in academic literature (Hanelt et al., 2021; Vial, 2019), are ambiguous and circular (Vial, 2019). As far as the researcher is aware, the following description is the most comprehensive, clear, and noncircular: “ a process wherein organisations respond to changes taking place in their environment by using digital technologies to alter their value creation process” (Vial, 2019, p.119). (Verhoef et al.'s 2021) posit that digital transformation comprises of digitisation, digitalisation, and digital transformation, with each phase being progressively more encompassing.

Extant literature shows that digital disruption is the primary trigger of digital transformation (Hanelt et al., 2021; Teece et al., 2016; Verhoef et al., 2021; Vial, 2019). Digital technologies are enablers of digital transformation as they underpin the digital ecosystem which produces insights that are used by organisations for decision-making (Hanelt et al., 2021; Tabrizi et al., 2019; Verhoef et al., 2021; Vial, 2019). Vial (2019) further added that the combination of digital technologies influences the capabilities of the digital ecosystems. Structural changes that are made to effectuate digital transformation (Hanelt et al., 2021) can result in organisational agility and a competitive advantage (Hanelt et al., 2021; Teece et al., 2016). Centralised and hierarchical organisational structures of incumbents can curtail their organisational agility relative to digital new entrants (Günther et al., 2017; Teece et al., 2016; Vial, 2019). Critics of decentralised structures point to their adverse impact on collaboration and data governance. The academic literature debate on the centralising versus decentralising computing technology dates back to the 1970s (Günther et al., 2017; King, 1983).

Findings and literature on the understanding of the notion of digital transformation are broadly aligned. This implies that the investee companies' understanding of the term digital transformation are unlikely to be an inhibitor in the adoption of digital transformation initiatives.

Despite most investee companies being incumbents in their sectors, an interesting insight from literature which was not observed in any of the findings was the debate on centralisation versus decentralisation of digital technology functions. The researcher notes that could be partially due to the characteristics of the selected sample with some of the organisation being too small to warrant multiple divisions. This is an area that could benefit from future research, and more specifically studies that will focus on observing the phenomena in practice as the academic conversation on this topic has had opposing for over 50 years.

In conclusion, the investee companies' understanding of the term digital transformation is aligned with literature. There is a need for future studies that well explore the impact of centralised versus decentralised digital functions on investee companies.

Theme 2: Core to an organisation's strategy

Findings of this research study demonstrated that digital transformation is core to organisational strategy, as it is a key enabler to the business strategy, it is main business strategy in selected cases, and it requires allocation of resources. Digital transformation being the business strategy was observed on mainly investee companies with a digital core offering. Participants highlighted digital transformation as a source of a competitive advantage. Findings also illustrated that digital transformation initiatives can require significant resource allocation with some initiatives having front loaded investment costs and payback periods that are long and back ended. Funding constraints in some investee companies has delayed implementation.

Literature argues that digital transformation is aligned with an organisation's broader strategy (Vial, 2019). (Chantias et al., 2019) echo this and further add that a digital transformation strategy is an emergent fusion strategy that encompasses business strategy and an IT strategy. Given the alignment of digital transformation with business strategy and Teece's dynamic capability model, digital transformation can be a source of a sustainable competitive advantage that leads to value creation (Teece et al., 2016). This can be achieved by an entrepreneurial manager that leverages its superior capabilities and organisational agility to re-configure the resources of an organisation to respond to rapid changes in the business environment. The correlation between dynamic capabilities and value creation in digital transformation is a relatively understudied (Magistretti et al., 2021; Teece et al., 2016).

A comparison of the findings of this study with literature shows an alignment with both literature and investee companies regarding digital transformation as being core to an organisation's strategy. It seems that it is less important whether an organisation regards digital transformation as the main business strategy or not. What matters is the alignment of the digital transformation initiatives with the main business strategy as digital transformation is an organisation-wide business-oriented process. This is supported by (Chantias et al.'s 2019) fusion view strategy which regards digital transformation strategies as a fusion between business strategy and IT strategy.

The strategic implication of the resource allocation component of digital transformation is evident in both the findings and literature. Investee companies' understanding that

digital technologies derive their value from how they are used, together with the awareness of the significant budgetary implications of digital transformation decisions imply that investee companies realise that the configuration of company resources affects a firm's competitive advantage and value creation. This is aligned with Teece's dynamic capability framework which attributes a competitive advantage to an ability to re-configure resources (Teece et al., 2016). In addition, the ability to determine a value creating use of digital technologies also highlights that investee companies realise the importance of entrepreneurial managers with superior capabilities. Our findings thus contribute to literature on dynamic capabilities in digital transformation, an area that is currently understudied.

In conclusion, the findings about the strategic importance of digital transformation are aligned with literature. Applying principles of Teece's dynamic capability framework (Teece et al., 2016) shows that digital transformation can be a source of a competitive advantage. The findings of this study contribute to literature on dynamic capabilities in digital transformation.

6.2.1. Research sub-question 1(b)

Research sub-question 1(b): What are the key drivers of digital transformation from the perspective of investee companies?

Theme 3: A customer centric approach for market share protection or gain, and new revenue streams

Findings of this study illustrate that digital disruption has intensified market competition and contributed to changing consumer behaviour. Customer centric digital transformation initiatives can aid investee companies in protecting or growing their market share of existing products and can assist with new product development.

Digital disruption has led to an emergence of new digital businesses and lower barriers to entry resulting in increased competition (Hanelt et al., 2021). Digital technologies underpin changing consumer behaviour (Chaniyas et al., 2019). However, capabilities of many organisations are not ready to meet the new customer demands (Kohli & Melville, 2019) resulting in a supply and demand mismatch. Günther et al. (2017) criticised literature for focusing on the positive aspects of digital transformation and neglecting negative social unintended consequences.

Similar to academic literature, findings from this study demonstrate that investee companies regard increasing competition and changing consumer demands as key drivers for adopting digital transformation. However, as per theme 1 findings, some investee companies have been slow to implement due to funding constraints. This implies that some of the investee companies do not have adequate funding resources to meet customer demands. Literature review showed that many organisations do not have adequate capabilities to meet demand.

An interesting insight from the literature review is the scant academic literature on the negative aspects of digital transformation on individuals and society. Participants did not raise any ethical or other social risks that could emanate from digital transformation which could impact the investee's competitiveness or ability to deliver customer centric products or service. This is thus an area that future research could explore.

Findings of this study show that investee companies regard increasing market competition and changing consumer demands as key drivers of digital transformation. This is aligned with literature. However, some scholars highlighted that social risks associated with digital transformation are an understudied area and present an area of future research.

Theme 4: Integrated, cheaper, better, faster, safer, and scalable processes free up employees to focus on higher level activities

Findings of this study show that digital technologies are used for generating more accurate information to be used in decision-making, and for automisation, digitalisation and for integration of systems. This leads to improved effectiveness, efficiency, safety, productivity, speed, scalability, and flexibility of systems and processes. With improved processes and more data analytics, humans can focus on more strategic and complex activities.

Extant literature shows that digital technologies enhances data analytics for decision-making, and improves automation, optimisation and integration of processes, resulting in faster, cheaper, better, and more scalable processes (Günther et al., 2017; Hanelt et al., 2021; Kohli & Melville, 2019; Verhoef et al., 2021; Vial, 2019). This allows humans to concentrate on more strategic and complex tasks that require common sense, human experience, and contextual information (Günther et al., 2017; Vial, 2019). Günther et al. (2017) posit data analytics are subject to human interpretation implying that the individuals who interpret and integrate data analytics may unduly influence the decision.

Findings of this study show that investee companies regard improved processes and people focusing on strategic complex tasks as internal key drivers of digital transformation, and this is consistent with extant literature. An insight from the literature, however, indicates that depending on people to interpret data analytics may increase the risk of human error that digital transformation is intended to minimise. This shows a subtle difference between findings and literature. Understanding the impact of human involvement on the data interpretation process of digital transformation is an area to future empirical studies could explore.

In conclusion, the theme about how the improvement of process enables people to focus on strategic tasks being a key driver of digital transformation is consistent with literature.

Theme 5: Other factors that influence adoption

From the findings of this study, it is evident that investee firms have a desire and willingness to pursue digital transformation. COVID accelerated the adoption rate of digital transformation. Concerns arise, and divergent views emerge when the execution method is discussed. Macro-environment, industry and investee company specific factors can affect adoption.

84% of global organisations regard digital transformation as a business imperative (Chaniyas et al., 2019). Despite the widely documented benefits of digital transformation, successful adoption thereof is low (Chaniyas et al., 2019; Kohli & Melville, 2019). According to Hanelt et al., (2021), COVID-19 has somewhat accelerated the adoption. Adoption does however vary by company size and industry (Verhoef et al., 2021).

The investee companies' desire and willingness to pursue digital transformation is supported by literature which state that 84% of global organisations regard digital transformation as a business imperative. The other factors that influence the adoption are also consistent with literature.

In conclusion, the assertion about investee companies' desire, and willingness to adopt digital transformation being accelerated by Covid is supported by literature.

Conclusion for Research sub-question 1

Research sub-question 1 sought to understand the reasons that investee companies adopt digital transformation. This was achieved by exploring the investees'

understanding of the notion of digital transformation and their understanding of the key drivers of digital transformation. The research findings were supported by literature for all themes under Research Sub-question 1.

6.3. Research sub-question 2

Research Sub-question 2: What factors influence the key decision makers during the digital transformation decision-making process?

Theme 6: Uncertainty drives resistance to change

Most participants regard outcomes of digital transformation initiatives as highly uncertain. However, some participants indicated that this type of uncertainty is common to all strategic decisions. Uncertainty can result in a fear of change which inhibits innovation, deters key decision makers from pursuing digital transformation decisions, and drives resistance to change. There are participants who noted that risk appetites of individuals have an impact on digital transformation initiatives, albeit to a limited extent as decisions are made by a collective.

Carson et al. (2022) argued that an individual's risk tolerance level also influences their strategic decision-making on projects with uncertain outcomes. The high level of uncertainty in digital transformation is underpinned by rapid digital changes (Vial, 2019) which makes it more uncertain than other strategic decisions that are not related to innovation (Teece et al., 2016). Decision-makers at large institutions, according to Kannan-Narasimhan & Lawrence's (2018) research, choose initiatives with more assurance over innovations with unknown results. In addition, literature shows that people resist change due to fear of change (Hussain et al., 2018; Teece et al., 2016).

The findings of this research study which state that uncertainty drives resistance to change are supported by literature. In addition, decision makers at large institutions shy away from innovation projects with unknown results. An unknown outcome could result in change when it eventuates, thus implying that decision makers of large institutions are also not choosing projects with high uncertainty due to a fear of change. This provides further support to the finding.

Key decision-makers may encounter resistance to change or they themselves can resist change associated with digital transformation due to the uncertainty of digital transformation outcomes. This finding is consistent with existing literature.

Theme 7: Financial incentives and career prospects

This study found that success of digital transformation outcomes has a positive impact on key decision makers compensation and career prospects. A failed digital transformation initiative does not affect guaranteed compensation and has an adverse impact on performance-based incentives. Key decision makers' career prospects are unaffected by unsuccessful efforts if they identify and address the problem quickly enough and if their dedicated investor is growth-minded and tolerant of some degree of failure. On the other hand, a protracted failure may result in the key decision maker losing their job. The majority of participants claim that because their main performance metrics include other variables, the overall impact of one failed digital transformation project is limited and does not affect their behavior when making decisions. Key decision-makers for investee companies controlled by private equity firms think more like owners than salaried employees and concentrate on the overall performance of the company rather than their incentives.

Management incentive structures are impacted by the type of corporate ownership (Banerjee & Homroy, 2018). Few studies have looked at how CEO incentives affect IT innovation (Choi et al., 2021). Empirical studies have shown that equity-based CEO incentives are an effective managerial incentive for IT innovation, and this relationship is increased by CEOs' IT expertise and training (Choi et al., 2021). According to Banerjee & Homroy (2018), a CEO's compensation structure affects their risk appetite, and when their equity exposure as a percentage of their overall personal wealth surpasses what they consider to be an acceptable level, they will choose projects with more certainty.

The literature that claims that management incentives are influenced by ownership type supports the finding that managerial incentives under private equity ownership structure differ from those of other ownership structures. Findings of this study illustrated that key decision makers of private equity owned investee companies are incentivised to make the best decision for the firm rather than their remuneration through an equity ownership structure. Making the best decision for the firm could include pursuing digital transformation, which has some similarities to IT innovation. This finding is supported by literature which states that equity-based incentives are an effective incentive for IT innovation. However, the findings of this study did not provide any evidence of a relationship between a CEO's IT experience and education, and propensity to pursue digital transformation innovation.

Existing literature shows that when the equity contribution exceeds an acceptable threshold, CEOs will seek lower certainty projects. This suggests that within the CEO's acceptable tolerance level, they will pursue greater certainty projects such as digital transformation. This literature provides some support to the finding that the overall impact of one failed digital transformation project is limited and does not affect a key decision maker's behavior when making decisions, because the performance-based portion of their compensation as a percentage of wealth is still within an acceptable tolerance level.

The finding that ownership structures influence managerial incentives is supported by literature. Equity-based compensation encourages management to pursue digital transformation as was observed with investee companies owned by private equity firms. This is partially supported by literature which states that within a key decision maker's acceptable range, equity ownership encourages key decision makers to pursue digital transformation. The subtlety is that research contends that equity ownership is only a motivator when it falls within a CEO's risk tolerance band.

The reviewed literature did not address the impact of digital transformation success or failure on remuneration or career prospects. This presents a potential extension of academic literature.

In conclusion, the assertion that financial incentive structures can be used to influence key decision makers to pursue digital transformation is aligned with existing literature, albeit with some subtleties. The finding that ownership structures influence managerial incentives is supported by literature.

Theme 8: Behavioural and emotional factors, and regulation mechanisms

The findings of this study show that emotions, perceived expertise, seniority, and personality can impact the decision-making process. Too much emotion (positive or negative) may result in a wrong decision being made. Even though self-regulation by individuals is expected, governance structures have been set up to limit their detrimental influence on the decision-making process. Key decision makers with perceived expertise, seniority and more convincing personalities are more influential in strategic decision-making processes of investee companies.

The strategic decision-making process can trigger emotions among decision makers, and this is exacerbated for uncertain and high risk decisions (Vuori & Huy, 2022). Negative emotions can result in decision makers overlooking the contribution of others,

leading to inferior decisions (Vuori & Huy, 2022). Vuori & Huy (2022) found that conducive firm structures and a group's ability to regulate group-wide emotions enhances the effectiveness of the strategic decision-making process. Furthermore, the success of emotion regulation is also influenced by the timing, sequencing, and combination of actions. Raffaelli et al. (2019) also found that cognitive shifts are critical for companies to adapt to technological change and that defensive emotions may be inhibitors of technological change. Literature also shows that due to power imbalances (Eisenhardt & Zbaracki, 1992), key decision makers engage in politics such as forming coalitions (Liu et al., 2021) during the strategy making process. Chanas et al. (2019) noted that internal politics could adversely affect digital transformation initiatives that are formulated in silos.

The finding that too much emotion can inhibit the decision-making progress is supported by literature. Literature further adds that emotions also inhibit innovation. In addition, investee companies have governance structures which enable group wide regulation of emotions, which is also supported by literature and bodes well for the investee company as literature shows that group-wide emotion regulation enhances the decision-making process.

Findings and literature differ where literature highlights cognitive factors that influence the decision-making process. The ability to apply cognitive shifts for an appropriate setting can help investee companies adapt to technological changes. This cognitive shift was not apparent in the findings of this research and is an area that future studies can explore as it can potentially enhance the dynamic capabilities of an investee company.

Literature emphasises the establishment of coalitions because of power inequalities, which is another distinction between findings and literature. Key decision makers did not indicate the establishment of a coalition, despite the findings clearly demonstrating power imbalances. This may be partially attributed to the fact that some investee companies are small and have a small executive team. This is an area that warrants further research.

In conclusion, emotions, and power imbalances may adversely affect the decision-making process. This finding is aligned with existing literature, albeit with some subtleties.

Theme 9: Organisational culture

An innovative, collaborative, and growth-oriented organisational culture bodes well for digital transformation. Divergent opinions were expressed, with some participants

claiming organisational culture is influenced by executive management and employees and not the investors. Other participants highlighted that the appropriate culture starts at the shareholder level.

Extant literature on organisational culture exists and dates to the 1980s (Martínez-Caro et al., 2020). The change that takes place during digitalisation necessitates a change in the culture of an organisation (Martínez-Caro et al., 2020) to a digital culture that provides support to the transformation (Martínez-Caro et al., 2020; Vial, 2019). According to Vial (2019), digital transformation requires an innovative culture that encourages experimentation and this must be embedded in organisational culture. In addition, company governance structures (Chanias et al., 2019) must also foster a collaborative culture as this is critical for a cross functional process such as digital transformation (Vial, 2019) and initiatives developed in silos typically face resistance due to internal politics (Chanias et al., 2019). For non-digital incumbents, this may involve a change in some of the organisational structure (Günther et al., 2017; Teece et al., 2016) because the traditional hierarchical organisation structures can limit the flow and quality of information, thus reducing collaboration (Günther et al., 2017).

Comparing the findings to literature shows that both findings and literature are aligned in that a conducive culture for digital transformation is an innovative culture that embraces experimentation and allows for collaboration across departments. The growth orientation in the findings is supported by literature that encourages experimentation

In conclusion, findings of this study about an innovative and collaborative organisational culture being conducive for digital transformation are consistent with literature.

Conclusion for research sub-question 2

Research Sub-question 2 sought to understand factors that influence key decision makers during the digital transformation decision-making process of investee companies. The key factors as per the findings are uncertainty of digital transformation outcomes may drive resistance to change, financial incentives, emotions, and power imbalances and organisational culture. These findings were supported by existing literature.

6.4. Research sub-question 3

Research Sub-question 3: How can dedicated institutional investors assist investee companies to pursue digital transformation?

Theme 10: Identifying and addressing differences in understanding

Some participants indicated that the differences in understanding of digital transformation initiatives between key decision makers and dedicated investors stem from a gap in knowledge, dedicated investors being more distant from operations and initiatives with sub-optimal returns. The differences can be addressed through evidence-based cases, and willingness to learn.

Lower level innovators and decision makers have a different understanding of the firm's resources (Kannan-Narasimhan & Lawrence, 2018). By rethinking firm resources while utilising their in-depth knowledge of the firm's existing resources, successful innovators can persuade key decision makers to adopt their nascent inventions with uncertain viability, as demonstrated by Kannan-Narasimhan & Lawrence (2018).

In contrast to the literature, which is predicated on the relationship between a key decision maker and an employee, the findings show a relationship between dedicated investors and key decision makers. There are principles that can be leveraged from the key decision maker – employee relation and apply them to the dedicated investor – key decision maker relation. In both instances there is a senior stakeholder (dedicated investors in the findings and key decision makers in literature) and a junior stakeholder (key decision makers in the findings and innovators in literature). Secondly, senior stakeholders are more distant from utilisation of the resources than the junior stakeholders who are closer to the ground. By not having a close intimate understanding of the resources or operations, the senior stakeholders may have a gap in their understanding of the opportunity. The onus is on the junior stakeholders to provide evidence to the senior stakeholder to help close the gap in understanding. Thus, based on this analysis, existing literature could partially explain the knowledge gap and the use of evidence-based cases to address the knowledge gap. There may be specific dynamics of those relationships that are not transferable, which would render the proposed explanation invalid.

The literature and the findings are both in the context of uncertainty, which may involve areas that both senior and junior stakeholders are unfamiliar with, making it necessary for both parties to learn together. As a result, both parties must be willing to learn. Thus, based on this analysis, literature could be used to explain the findings.

Based on the analysis above, the findings appear to be consistent with literature, albeit nuanced. The findings could also be used as an extension of the literature as it extends

the applicability of the literature in a relationship between dedicated investor and a key decision maker, whereas literature was based on a relationship innovators and more senior employees of the organisation such as management. Future studies that explore the relationship in different settings may further strengthen the findings of this study or highlight weaknesses.

Theme 11: Playing a guidance and advisory role

Findings indicated that dedicated investors play a guidance and advisory role, and delegate the executive functions of the business to the executive management. Executives formulate the strategy and dedicated investors provide oversight. Dedicated investors also leverage their networks, experience, and skills for the benefit of the investee companies. Although few, some key decision-makers expressed dissatisfaction with the limited expertise and networks of devoted investors in digital transformation, which contributed to implementation failure. Findings also demonstrated that shareholder misalignment impedes decision-making when an investee has several shareholders.

Literature on the role of the board shows that it has evolved from being reactive to more proactive involvement in influencing the strategy of a company (Hoppmann et al., 2019). A top-down and bottom-up strategy formulation approach is more appropriate for digital transformation strategies as a top-down approach is typically resisted due to internal politics (Chaniyas et al., 2019). IT should not lead the digital transformation strategy making process as it is an organisation-wide process that is more business and customer oriented (Chaniyas et al., 2019).

Board responsibilities include playing an advisory and guidance role to the executive directors (Hoppmann et al., 2019). According Hoppmann et al. (2019), boards with more non-executive directors that have skills, experience and industry networks are better able to respond to strategic changes (Hoppmann et al., 2019). Extant corporate governance literature shows that inertia can prevent organisations from responding timeously to change (Hoppmann et al., 2019). Academic scholars attribute the inertia to management cognitive factors, inappropriate incentivisation, difficulties in re-configuring company resources, capabilities, and more recently to board corporate governance (Hoppmann et al., 2019). A large board with multiple shareholding directors can impede the strategic decision-making process (Hoppmann et al., 2019).

Findings of this theme are supported by literature. Both findings and literature show that dedicated investors play a guidance and advisory non-executive role. Some participants attributed the failure of the digital transformation initiative to a few reasons including limited experience and limited networks of their dedicated investor shareholder. This finding is consistent with literature that states boards with skilled and experienced non-executive adapt to change better. In addition, the finding that shareholder misalignment impedes decision-making where an investee company has multiple shareholders could contribute to organisational inertia as the discussion amongst misaligned shareholders could be protracted. With the key decision makers in the failed project having admitted to also having their own lack of experience in digital transformation, it could be that their own cognitive challenges or inability to reconfigure resources and capabilities in an optimal way also contributed.

The main difference is that literature recommends a strategy formulation process that incorporates a bottom-up and top-down approach whereas findings show a bottom-up approach. This could be because dedicated investors regard executives and other management as better placed to formulate the strategy. Since the strategy is reviewed and approved by the board, dedicated investors can opine on it before approval.

In conclusion, the finding that dedicated investors play a non-executive advisory and guidance role is supported by literature.

Theme 12: Assessment of proposals, approval of decisions, allocation of capital

Key stakeholders vary by investee company, but they typically include CEO, CTO, CFO, board, and more recently chief human resource officer and chief digital officer. Based on the findings of this study, dedicated investors are involved in the rigorous assessments of proposals, approval of decisions using their delegated authority and in the capital allocation decisions for initiatives that fall within their approval thresholds. Dedicated investors have limited to no involvement in idea generation, gathering of relevant information, compiling a business case and implementation of a digital transformation initiatives, which are all activities that are performed by predominantly executive management and employees.

Most of the literature on decision-making and TMT is based on information of publicly listed entities which is more freely available due to legal and regulatory reporting disclosure requirements on listed firms (Fitz & Tihanyi, 2017). Key decision makers include CEOs, TMT members, board members, and middle managers (Burgelman et al., 2018). Responsibilities of the board include monitoring and control, appointment and

dismissal of key executive managers, assess initiatives presented by management and approve or reject based on delegated authority (Hoppmann et al., 2019).

Findings of this theme are broadly supported by literature. The subtle differences relate to the composition of the board and the key decision makers, with most literature being based on large organisations that are mainly listed. Investee companies can be as small having only the CEO as an executive. In contrast, large organisations typically include the full C-suite. Similarly with the board composition, where non-executive if investee companies are typically the dedicated investors, whereas for large organisations non-executive normally include independent non-executive directors as well.

In sum, the findings of this theme are consistent with literature, albeit there are differences in the composition of the decision maker body and the board.

Theme 13: Encourage digital transformation uncertainty/risk management

The findings of this study illustrate that risk management is a key consideration in digital transformation. Investee companies pursuing digital transformation are exposed to various risks including execution and cyber security risk. Cyber security was highlighted as the most significant threat. Lack of a comprehensive risk assessment could result in implementation failure. Risk mitigation procedures vary. Dedicated investors encourage Investee companies to use staggered risk mitigation techniques (minimum viable products, fail fast, etc), risk mitigation through adaptation, sharing risk with customers, and risk mitigation through partnerships. Some participants indicated that investee companies on the digital transformation journey must continuously monitor and report risk management.

Digital transformation has inherent strategic uncertainty (Morreale et al., 2019). Teece et al. (2016) distinguish between uncertainty (unknown unknowns) and risk (known unknowns) and argue that these two require different mitigation plans. They argue that a pro-active mitigation plan is crucial in the highly uncertain digital transformation space (Teece et al., 2016). Widely cited mitigants of uncertainty in digital transformation include minimum viable products, fail fast experimentation oriented techniques, and implementation of small incremental changes.

Terminology between literature and findings is different with literature distinguishing between risk and uncertainty. However, both the findings and literature highlight the importance of a mitigation plan. Mitigants for uncertainty as per the findings are based

on the same principles as literature which are based on implementing staggered and small incremental changes, that allow for ongoing customer feedback and learning.

In conclusion, investee companies must implement mitigate uncertainty by implementing small incremental changes and learning along the way. The finding is supported by literature.

Theme 14: Stakeholder buy-in and change management

Findings of this study illustrate that change management is a crucial element of digital transformation. Change management entails obtaining stakeholder buy-in and ensuring that the investee companies have the right people in term of skills, competence, attitude, and aptitude. This can be achieved through a combination of upskilling the existing workforce and hiring new people. Obtaining stakeholder buy-in is crucial for the success of a digital transformation initiative of an investee companies given the cross functional nature of digital transformation and people component of digital transformation. Early involvement of stakeholders and communication of the vision helps with achieving buy-in.

Academic literature on change management is fragmented and most commonly used models lack scientific evidence (Stouten et al., 2018). Stouten et al.'s (2018) study which sought to present a consolidated view of the various change management models identified the following themes across most models: formulation and communication of a vision, organisational culture change, gaining stakeholder buy-in across all departments through transparency, involving people, and monitoring progress.

Given the multi-disciplinary nature (Hanelt et al., 2021; Vial, 2019) and that people resist change due to fear of the unknown (Günther et al., 2017; Vial, 2019), obtaining stakeholder buy in is crucial for digital transformation (Günther et al., 2017) Close communication is regarded as a key success factor in cross-functional projects as it helps improve stakeholder buy-in (Günther et al., 2017).

The findings of this study are aligned with most of Stouten et al.'s (2018) consolidated themes of change management models. Furthermore, our findings are supported by literature which emphasises the importance of stakeholder buy-in during change management. Given the fragmented scholarly literature on change management models and lack of scientific rigour, the findings of this study can contribute towards increasing unified findings.

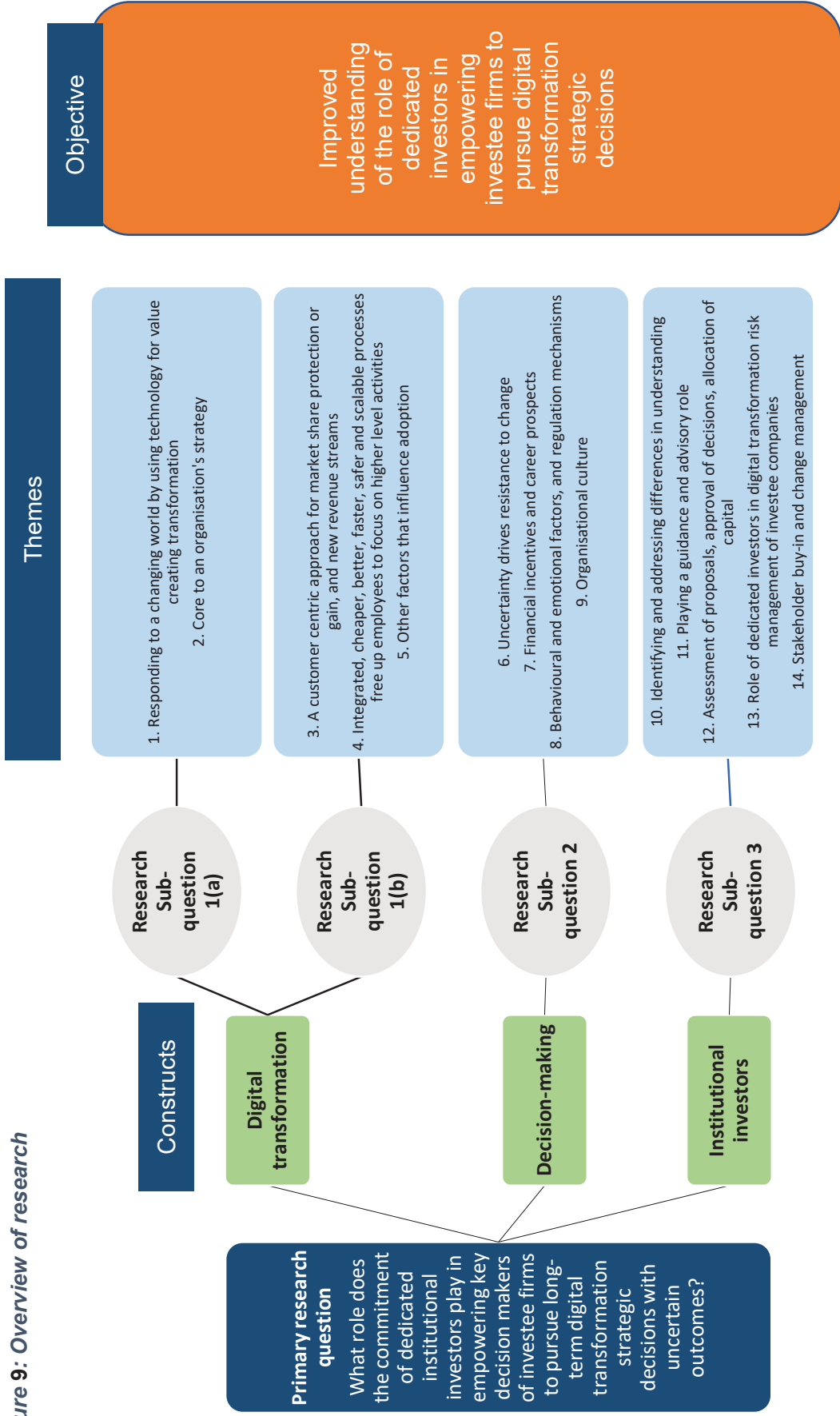
In conclusion, the findings of this study on stakeholder buy-in and change management supported by some of the academic literature.

Conclusion for research sub-question 3

Research Sub-question 3 sought to understand ways that dedicated institutional investors can assist investee companies to pursue digital transformation. The following findings were supported by literature.

- Identifying and addressing differences in understanding
- play a non-executive advisory and guidance
- Assessment of proposals, approval of decisions, allocation of capital
- Role of dedicated investors in digital transformation risk management of investee companies
- Stakeholders buy-in and change management

Figure 9: Overview of research



Note. Author's own.

Chapter 7

7. Conclusion and recommendations

7.1. Introduction

This qualitative study set out to explore the role of the commitment of dedicated institutional investors on influencing the key decision makers of investee firms to choose long-term digital transformation strategic decisions with uncertain outcomes. Principal theoretical conclusions are set out in this chapter. The chapter also presents the recommendations for management, limitations of the research and suggestions for future research.

7.2. Principal theoretical conclusions

The findings of this research were largely supported by literature. Any deviations are highlighted in the relevant section below.

7.2.1. Research Sub-question 1: Why do investee companies pursue digital transformation?

Digital transformation is reacting to a rapidly changing business environment by using digital technologies to transform the value creation process of an organisation (Vial, 2019). Adapting to the changing environment is a business imperative and strategic imperative. Digital transformation is core and aligned to an organisation's broader strategy (Vial, 2019). It can be a source of a sustainable competitive advantage that leads to value creation (Teece et al., 2016). However, digital transformation projects can require significant resource allocation with costs of other initiatives being front-loaded and payback periods being long and back ended.

Digital disruption has intensified market competition (Hanelt et al., 2021) and contributed to changing consumer behaviour (Chanas et al., 2019). This has resulted in a need for customer centric solutions that are underpinned by digital transformation to remain competitive. To be able to deliver an acceptable product or service offering, organisations are using digital technologies to improve the effectiveness, efficiency, safety, productivity, speed, scalability, and flexibility of their systems and processes (Günther et al., 2017; Hanelt et al., 2021; Kohli & Melville, 2019; Verhoef et al., 2021; Vial, 2019).

Organisations have a willingness and desire to adopt digital transformation and this was accelerated by Covid-19 (Hanelt et al., 2021). Other factors that influence the adoption of digital transformation include the macro-environment, industry, and company specific factors.

7.2.2. Research Sub-question 2: What factors influence the key decision makers during the digital transformation decision-making process?

Digital transformation has inherent high level of uncertainty (Hanelt et al., 2021; Teece et al., 2015). Uncertainty results in fear which can cause people to resist change and avoid taking risks. An individual's risk tolerance level influences their strategic decision-making on projects with uncertain outcomes (Carson et al., 2022).

There are financial incentive structures (Choi et al., 2021) and ownership structures (Banerjee & Homroy, 2018) that can be used to influence key decision makers to pursue digital transformation. However, equity ownership is only a motivator when it falls within a CEO's risk tolerance band (Banerjee & Homroy, 2018).

Emotions, and power imbalances can impede the decision-making process, and more so in environments of high uncertainty (Vuori & Huy, 2022). Group-wide regulation of emotions enhances the effectiveness of the strategic decision-making process (Vuori & Huy, 2022).

Digital transformation change necessitates a change in the culture of the organisation. An innovative, collaborative, and growth-oriented organisational culture bodes well for digital transformation (Chanias et al., 2019).

7.2.3. Research Sub-question 3: How can dedicated institutional investors assist investee companies to pursue digital transformation?

Dedicated investors must address the difference in understanding of digital transformation initiatives between key decision makers and dedicated investors that stems from knowledge gaps and dedicated investors being more distant from operations than key decision makers (Kannan-Narasimhan & Lawrence, 2018). The differences can be addressed through the key decision makers providing more evidence and both key decision makers and dedicated investors being willing to learn together in unfamiliar territory.

Dedicated investors provide guidance, advice and oversee the strategy formulation and implementation process of investee companies. With boards that are dominated by dedicated investor non-executive directors that have skills, experience and industry networks, investee companies will be better capacitated to respond to digital transformation strategic changes (Hoppmann et al., 2019). A large with multiple shareholding directors can stifle the strategic decision-making process if there is misalignment amongst shareholders (Hoppmann et al., 2019).

Dedicated investors can play a pivotal role in resource allocation decisions including assessment of business initiatives, approval of strategic decisions and allocation of capital (Hoppmann et al., 2019). To proactively manage the high uncertainty associated with digital transformation, dedicated investors can encourage investee companies to use that rely on small incremental changes, adaptable and allow for customer feedback (Hanelt et al., 2021; Teece et al., 2016).

7.3. Research contribution

Even though willingness to adopt digital transformation is high, adoption remains low. This study helps to shed light on digital transformation as a source of value creation by contribution to various academic disciplines including digital transformation, strategy, investment, organisational change, and decision-making. Using Teece et al.'s (2016) dynamic capability model, we show that digital transformation can be a source of competitive advantage. Considering the change that is inherent in digital transformation we contribute to organisational agility, organisational change and change management academic literature

7.3.1. Refinement to literature

Although the findings demonstrated existence of power imbalances, there was no evidence of establishment of coalitions. This nuance presents a potential refinement to literature which states that coalitions may form when there are power imbalances.

An insight from the findings was that there are differences in the understanding of digital transformation initiatives between key decision makers and dedicated investors that stem from a gap in knowledge, dedicated investors being more distant from operations and initiatives with sub-optimal returns. A similar phenomenon was found in literature, albeit in a different context. This finding presents a potential refinement in literature.

7.3.2. Extension to literature

The reviewed literature did not address the impact of digital transformation success or failure on remuneration or career prospects. This presents a potential extension of academic literature.

7.4. Implication for business

This study contributes to business by shedding more light on how an investee firm may leverage its ownership by a dedicated investor to enhance the effectiveness of its strategic decision-making for digital transformation. This will be achieved by improve the manager's understanding of digital transformation, its key drivers and factors that influence key decision makers as they make strategic decisions.

In addition, digital transformation is a source of value creation and a key enabler of an organisation's strategy which are both important considerations given that digital disruption has intensified market competition and is contributing to changing customer behaviour. Customer centric digital transformation initiatives are required to remain competitive.

Other considerations are listed below:

- Digital transformation leads to integrated, cost effective, more efficient, faster, safer and more scalable processes which allows employee to focus on more strategic and complex tasks.
- The willingness to adopt digital transformation was accelerated by COVID-19
- Digital transformation has an inherent high level of uncertainty. The uncertainty can result in fear and resistance to change.
- There are financial incentives that motivate key decision makers to pursue digital transformation.
- Behavioural and emotional factors can impede the decision-making process. Governance structures to regulate emotions enhance the decision-making process.
- An innovative, collaborative, and growth oriented organisational culture is conducive for digital transformation.

7.5. Limitations of the research

Section 4.15 of Chapter 4 sets out the limitations of the research design and methodology. The limitations of the research study as a whole are listed below.

- The scope of the study was limited to the decision-making process specifically for digital transformation strategic decisions in selected South African investee companies that are owned by dedicated institutional investors.
- The findings are not generalisable to other industries as there may be specific nuances in those industries which are different to the industries in this study.
- Investee company discussions that involve strategy are internal conversations. The participants would thus not be able to share certain confidential information in the research interview, some of which could have added more depth to the findings of this study.

7.6. Suggestions for future research

The following are based on insights that were observed in literature but were not evident in the findings of this research.

An insight from the literature indicates that depending on people to interpret data analytics may increase the risk of human error that digital transformation is intended to minimise. This was not evident in the findings of this research and warrants further research.

An interesting insight from the literature review is the scant academic literature on the negative aspects of digital transformation on individuals and society. This was not evident in our findings and warrants further research. This an area that future research could explore.

Despite most investee companies being incumbents in their sectors, an interesting insight from literature which was not observed in any of the findings was the debate on centralisation versus decentralisation of digital technology functions. This is an area that could benefit from future research, and more specifically studies that will focus on observing the phenomena in practice as the academic conversation on this topic has had opposing for over 50 years.

8. Reference list

- Akinci, C., & Sadler-Smith, E. (2019). Collective Intuition: Implications for Improved Decision and Organizational Learning. *British Journal of Management*, 30(3), 558–577. <https://doi.org/10.1111/1467-8551.12269>
- Alstyne, M. W. Van, & Parker, G. G. (2021). Digital Transformation Changes How Companies Create Value. *Harvard Business Review*, 1–8. <https://hbr.org/2021/12/digital-transformation-changes-how-companies-create-value>
- Altarawneh, M., Shafie, R., & Ishak, R. (2020). CEO characteristics: A literature review and future directions. *Academy of Strategic Management Journal*, 19(1), 1–10.
- Appelbaum, S. H., Habashy, S., Malo, J. L., & Shafiq, H. (2012). Back to the future: Revisiting Kotter's 1996 change model. *Journal of Management Development*, 31(8), 764–782. <https://doi.org/10.1108/02621711211253231>
- Banerjee, S., & Homroy, S. (2018). Managerial incentives and strategic choices of firms with different ownership structures. *Journal of Corporate Finance*, 48, 314–330. <https://doi.org/10.1016/j.jcorpfin.2017.10.001>
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
- Baron, J. (2019). Is Your Company's Strategy Aligned with Your Ownership Model? In *Harvard Business Review* (pp. 1–7). <https://hbr.org/2019/01/is-your-companys-strategy-aligned-with-your-ownership-model>
- Bell, E., Bryan, A., & Harley, B. (2019). *Business research methods* (5th ed.). Oxford University Press.
- Benischke, M. H., Martin, G. P., & Glaser, L. (2019). CEO equity risk bearing and strategic risk taking: The moderating effect of CEO personality. *Strategic Management Journal*, 40(1), 153–177. <https://doi.org/10.1002/smj.2974>
- Bingham, C., & Eisenhardt, K. (2011). Rational heuristics: The “simple rules” taht strategists learn from process experience. *Strategic Management Journal*, 32, 1437–1464. <https://doi.org/10.1002/smj.965>
- Block, C. (2022). *12 Reasons your digital transformation will fail*. Forbes. <https://www.forbes.com/sites/forbescoachescouncil/2022/03/16/12-reasons-your-digital-transformation-will-fail/?sh=dd15a301f1ee>
- Boddy, C. R. (2016). Sample size for qualitative research. *Qualitative Market Research*, 19(4), 426–432. <https://doi.org/10.1108/QMR-06-2016-0053>
- Bratel, C., DuVarney, D., & Klein, A. (2022). *Making the case for digital transformation*. Baker Tilly US, LLP. <https://www.bakertilly.com/insights/making-the-case-for-digital-transformation>

- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
<http://www.ncbi.nlm.nih.gov/pubmed/11752478>
- Brisley, N., Cai, J., & Nguyen, T. (2021). Required CEO stock ownership: Consequences for risk-taking and compensation. *Journal of Corporate Finance*, 66(November 2019), 101850. <https://doi.org/10.1016/j.jcorpfin.2020.101850>
- Burgelman, R. A., Floyd, S. W., Laamanen, T., Mantere, S., Vaara, E., & Whittington, R. (2018). Strategy processes and practices: Dialogues and intersections. *Strategic Management Journal*, 39(3), 531–558. <https://doi.org/10.1002/smj.2741>
- Carson, R. T., Graff Zivin, J. S., Louviere, J., Sadoff, S., & Shrader, J. G. (2022). The Risk of Caution: Evidence from an R&D Experiment. *Management Science, Articles i*(February), 1–19. <https://doi.org/10.3386/w26847>
- Chanias, S., Myers, M. D., & Hess, T. (2019). Digital transformation strategy making in pre-digital organizations: The case of a financial services provider. *Journal of Strategic Information Systems*, 28(1), 17–33.
<https://doi.org/10.1016/j.jsis.2018.11.003>
- Chin, M. K., Zhang, S. X., Jahanshahi, A. A., & Nadkarni, S. (2021). Unpacking political ideology: Ceo social and economic ideologies, strategic decision-making processes, and corporate entrepreneurship. *Academy of Management Journal*, 64(4), 1213–1235. <https://doi.org/10.5465/AMJ.2019.1228>
- Choi, I., Chung, S., Han, K., & Pinsonneault, A. (2021). CEO risk-taking incentives and IT innovation: The moderating role of a CEO's IT-related human capital. *MIS Quarterly*, 45(4), 2175–2192. <https://doi.org/10.25300/MISQ/2022/15606>
- Cohen, M., March, J., & Olsen, J. (1972). A Garbage can model of organisational choice. *Administrative Science Quarterly*, 17(1), 1–25.
<https://doi.org/10.1002/9781118785317.weom110102>
- Cortes, A. F., & Herrmann, P. (2021). Strategic leadership of innovation: A framework for future research. *International Journal of Management Reviews*, 23(2), 224–243. <https://doi.org/10.1111/ijmr.12246>
- Cremers, M., Pareek, A., & Sautner, Z. (2020). Short-term investors, long-term investments, and firm value: Evidence from russell 2000 index inclusions. *Management Science*, 66(10), 4535–4551.
<https://doi.org/10.1287/mnsc.2019.3361>
- Creswell, J. (2007). Qualitative inquiry & research design: Choosing among five approaches. In *Sage Publications: Vol. Second Edi*.
- Crittenden, V. L., & Crittenden, W. F. (2008). Building a capable organization: The eight levers of strategy implementation. *Business Horizons*, 51(4), 301–309.

- <https://doi.org/10.1016/j.bushor.2008.02.003>
- Cypress, B. (2018). Qualitative research methods: A phenomenological focus. *Dimensions of Critical Care Nursing*, 37(6), 302–309.
<https://doi.org/10.1097/DCC.0000000000000322>
- Daskal, T. (2022). *Digital transformation plans versus reality; Top reasons why organisations fail at digital transformation*. Forbes Technology Council.
<https://www.forbes.com/sites/forbestechcouncil/2022/05/20/digital-transformation-plans-versus-reality-top-reasons-why-organizations-fail-at-digital-transformation/?sh=5fa18dd6591b>
- De La Cruz, A., Medina, A. (PhD), & Tang, Y. (PhD). (2019). Owners of the World's Listed Companies. *OECD Capital Market Series, Paris*, 1–41.
<https://www.oecd.org/corporate/Owners-of-the-Worlds-Listed-Companies.htm>
- Denning, S. (2021). *Why digital transformations are failing*. Forbes.
<https://www.forbes.com/sites/stevedenning/2021/05/23/why-digital-transformations-are-failing/?sh=72d141ed7617>
- Dong, J. Q. (2021). Technological choices under uncertainty: Does organizational aspiration matter? *Strategic Management Journal*, 42(5), 898–916.
<https://doi.org/10.1002/smj.3253>
- Dudovskiy, J. (2022). *Purposive sampling*. Business Research Methodology.
<https://research-methodology.net/sampling-in-primary-data-collection/purposive-sampling/>
- Eisenhardt, K., & Zbaracki, M. (1992). Strategic Decision Author (s): Kathleen M . Eisenhardt and Mark J . Zbaracki Source : Strategic Management Journal , Winter , 1992 , Vol . 13 , Special Issue : Fundamental Themes in Strategy Process Research (Winter , 1992), pp . 17-37 Publishe. *Strategic Management Journal*, 13, 17–37.
- Felin, T., Foss, N., & Polyhart, R. (2015). The microfoundations movement in strategy and organization theory. *Academy of Management Annals*, 9(1), 575–632.
<https://doi.org/https://doi.org/10.5465/19416520.2015.1007651>
- Fitza, M., & Tihanyi, L. (2017). How Much Does Ownership Form Matter? *Strategic Management Journal*, 38(13), 2726–2743. <https://doi.org/10.1002/smj.2671>
- Fusch, P. I., & Ness, L. R. (2015). Are we there yet? Data saturation in qualitative research. *Qualitative Report*, 20(9), 1408–1416. <https://doi.org/10.46743/2160-3715/2015.2281>
- Ghosh, S., & Gopolakrishnan, P. (2021). *TP perspectives of digital transformation and change management*. Deloitte Tax.
<https://www.internationaltaxreview.com/article/b1tnrwml1yn15y/tp-perspectives-of->

digital-transformation-and-change-management

- Glauner, P. (2019). *Artificial Intelligence for the Detection of Electricity Theft and Irregular Power Usage in Emerging Markets*. January, 1–128.
<http://hdl.handle.net/10993/38544>
- Guest, G., Arwen, B., & Johnson, L. (2006). How Many Interviews Are Enough?: An Experiment with Data Saturation and Variability. *Field Methods*, 18(1), 59–82.
<https://doi.org/https://doi-org.uplib.idm.oclc.org/10.1177/1525822X05279903>
- Günther, W. A., Rezazade Mehrizi, M. H., Huysman, M., & Feldberg, F. (2017). Debating big data: A literature review on realizing value from big data. *Journal of Strategic Information Systems*, 26(3), 191–209.
<https://doi.org/10.1016/j.jsis.2017.07.003>
- Gupta, A., Nadkarni, S., & Mariam, M. (2019). Dispositional Sources of Managerial Discretion: CEO Ideology, CEO Personality, and Firm Strategies. *Administrative Science Quarterly*, 64(4), 855–893. <https://doi.org/10.1177/0001839218793128>
- Hanelt, A., Bohnsack, R., Marz, D., & Antunes Marante, C. (2021). A systematic review of the literature on digital transformation: Insights and implications for strategy and organizational change. *Journal of Management Studies*, 58(5), 1159–1197.
<https://doi.org/10.1111/joms.12639>
- Harford, J., Kecskés, A., & Mansi, S. (2018). Do long-term investors improve corporate *Journal of Corporate Finance*, 50, 424–452.
<https://doi.org/10.1016/j.jcorpfin.2017.09.022>
- Hoppmann, J., Naegele, F., & Girod, B. (2019). Boards as a source of inertia: Examining the internal challenges and dynamics of boards of directors in times of environmental discontinuities. *Academy of Management Journal*, 62(2), 437–468.
<https://doi.org/10.5465/amj.2016.1091>
- Hussain, S. T., Lei, S., Akram, T., Haider, M. J., & Hussain, S. H. (2018). Kurt Lewin's change model: A critical review of the role of leadership and employee involvement in organisational change. *Journal of Innovation and Knowledge*, 3(1), 44–55. <http://dx.doi.org/10.1016/j.jik.2017.06.002>
- International Data Corporation. (2022). *New IDC spending guide shows continued growth for digital transformation as organizations focus on strategic priorities*.
<https://www.idc.com/getdoc.jsp?containerId=prUS49114722>
- Kannan-Narasimhan, R. P., & Lawrence, B. S. (2018). How innovators reframe resources in the strategy-making process to gain innovation adoption. *Strategic Management Journal*, 39(3), 720–758. <https://doi.org/10.1002/smj.2748>
- Kauppila, O. P., Bizzi, L., & Obstfeld, D. (2018). Connecting and creating: tertius iungens, individual creativity, and strategic decision processes. *Strategic*

- Management Journal*, 39(3), 697–719. <https://doi.org/10.1002/smj.2728>
- Keum, D. D. (2021). Innovation, short-termism, and the cost of strong corporate governance. *Strategic Management Journal*, 42(1), 3–29. <https://doi.org/10.1002/smj.3216>
- King, J. L. (1983). Centralized versus decentralized computing: Organizational considerations and management options. *ACM Computing Surveys (CSUR)*, 15(4), 319–349. <https://doi.org/10.1145/289.290>
- Kohli, R., & Melville, N. P. (2019). Digital innovation: A review and synthesis. *Information Systems Journal*, 29(1), 200–223. <https://doi.org/10.1111/isj.12193>
- LaBerge, L., O'Toole, C., Schneider, J., & Smaje, K. (2020). *How Covid-19 has pushed companies over the technology tipping point - and transformed business forever*. McKinsey Quarterly. <https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/how-covid-19-has-pushed-companies-over-the-technology-tipping-point-and-transformed-business-forever>
- Lamarre, E., Smaje, K., & Zempel, R. (2021). The digital-value guardian : CEOs and digital transformations. *McKinsey & Company, December*, 3. <https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/the-digital-value-guardian-ceos-and-digital-transformations>
- Laureiro-Martínez, D., & Brusoni, S. (2018). Cognitive flexibility and adaptive decision-making: Evidence from a laboratory study of expert decision makers. *Strategic Management Journal*, 39(4), 1031–1058. <https://doi.org/10.1002/smj.2774>
- Levers, M. J. D. (2013). Philosophical paradigms, grounded theory, and perspectives on emergence. *SAGE Open*, 3(4), 1–6. <https://doi.org/10.1177/2158244013517243>
- Li, L., Su, F., Zhang, W., & Mao, J. Y. (2018). Digital transformation by SME entrepreneurs: A capability perspective. *Information Systems Journal*, 28(6), 1129–1157. <https://doi.org/10.1111/isj.12153>
- Litov, L. P., Moreton, P., & Zenger, T. R. (2012). Corporate strategy, analyst coverage, and the uniqueness paradox. *Management Science*, 58(10), 1797–1815. <https://doi.org/10.1287/mnsc.1120.1530>
- Liu, F., Jarrett, M., & Maitlis, S. (2021). Top management team constellations and their implications for strategic *Leadership Quarterly*, xxxx, 101510. <https://doi.org/10.1016/j.leaqua.2021.101510>
- Lydon, B. (2022). *Digitalisation and* International Society of Automation. ISA's Flagship Publications November/December 2019 Digitalization and Logo Digitalization and Bill Lydon Web Exclusive Summary The technology-driven transformation of manufacturing, described by many terms, including Indu

- Magistretti, S., Pham, C. T. A., & Dell’Era, C. (2021). Enlightening the dynamic capabilities of design thinking in fostering digital transformation. *Industrial Marketing Management*, 97(June), 59–70.
<https://doi.org/10.1016/j.indmarman.2021.06.014>
- Manyika, J., & Tuin, M. (2020). *It’s time to build 21st century companies: Learning to thrive in a radically different world*. McKinsey Global Institute.
<https://www.mckinsey.com/mgi/overview/in-the-news/its-time-to-build-21st-century-companies>
- March, J., & Simon, H. (1958). *Organizations*. New York, NY:Wiley.
- Martínez-Caro, E., Cegarra-Navarro, J. G., & Alfonso-Ruiz, F. J. (2020). Digital technologies and firm performance: The role of digital organisational culture. *Technological Forecasting and Social Change*, 154(February), 119962.
<https://doi.org/10.1016/j.techfore.2020.119962>
- Morreale, A., Mittone, L., & Lo Nigro, G. (2019). Risky choices in strategic environments: An experimental investigation of a real options game. *European Journal of Operational Research*, 279(1), 143–158.
<https://doi.org/10.1016/j.ejor.2019.05.013>
- Musaji, S., Schulze, W. S., & Castro, J. O. D. E. (2020). How long does it take to get to the learning curve? *Academy of Management Journal*, 63(1), 205–223.
<https://doi.org/10.5465/amj.2017.1145>
- Naciti, V. (2019). Corporate governance and board of directors: The effect of a board composition on firm sustainability performance. *Journal of Cleaner Production*, 237, 117727. <https://doi.org/10.1016/j.jclepro.2019.117727>
- Nanda, R., Gurumurthy, R., Roddick, S., & Golden, D. (2021). A new language for digital transformation. *Deloitte Insights*, 1–16.
<https://www2.deloitte.com/za/en/insights/topics/digital-transformation/digital-transformation-approach.html>
- Norman, M. (2020). Digital transformation: Are people still our greatest asset? In *Deloitte*. <https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/about-deloitte/deloitte-uk-digital-transformation-are-people-still-our-greatest-asset.pdf>
- Oehmichen, J., Firk, S., Wolff, M., & Maybuechen, F. (2021). Standing out from the crowd: Dedicated institutional investors and strategy uniqueness. *Strategic Management Journal*, 42(6), 1083–1108. <https://doi.org/10.1002/smj.3269>
- Padmanabhan, V., Berez, S., & Gautheron, P. (2019). *Four myths of digital transformation: What only 8% of companies know*. Bain & Company.
<https://www.bain.com/insights/four-myths-of-digital-transformation-what-only-8-percent-of-companies-know/>

- Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful Sampling for Qualitative Data Collection and Analysis in Mixed Method Implementation Research. *Administration and Policy in Mental Health and Mental Health Services Research*, 42(5), 533–544.
<https://doi.org/10.1007/s10488-013-0528-y>
- Perrin, O., & Ronte, H. (2020). *Identifying “unknown unknowns”: a perspective on non-traditional competition*. Deloitte Insights.
<https://www2.deloitte.com/za/en/insights/topics/strategy/how-to-stay-competitive-amid-disruption.html>
- Pye, A., & Pettigrew, A. (2005). Studying board context, process and dynamics: Some challenges for the future. *British Journal of Management*, 16, 27–38.
<https://doi.org/10.1111/j.1467-8551.2005.00445.x>
- Raffaelli, R., Glynn, M. A., & Tushman, M. (2019). Frame flexibility: The role of cognitive and emotional framing in innovation adoption by incumbent firms. *Strategic Management Journal*, 40(7), 1013–1039.
<https://doi.org/10.1002/smj.3011>
- Samimi, M., Cortes, A. F., Anderson, M. H., & Herrmann, P. (2020). What is strategic leadership? Developing a framework for future research. *Leadership Quarterly*, November, 101353. <https://doi.org/10.1016/j.leaqua.2019.101353>
- Sampson, R. C., & Shi, Y. (2020). Are U.S. firms becoming more short-term oriented? Evidence of shifting firm time horizons from implied discount rates, 1980–2013. *Strategic Management Journal*, 1–33. <https://doi.org/10.1002/smj.3158>
- Saunders, M., Lewis, P., & Thornhill, A. (2007). Research methods for business students. In *Pearson* (Fourth). Pearson Education.
https://www.researchgate.net/publication/330760964_Research_Methods_for_Business_Students_Chapter_4_Understanding_research_philosophy_and_approaches_to_theory_development
- Simon, H. A. (1968). The Future of Information Processing Technology. *Management Science*, 14(9), 619–624.
- Statista. (2022). *Spending on digital transformation technologies and services worldwide from 2017 to 2025*.
<https://www.statista.com/statistics/870924/worldwide-digital-transformation-market-size/>
- Stouten, J., Rousseau, D. M., & De Cremer, D. (2018). Successful organizational change: Integrating the management practice and scholarly literatures. *Academy of Management Annals*, 12(2), 752–788. <https://doi.org/10.5465/annals.2016.0095>
- Tabrizi, B., Lam, E., Girard, K., & Irvin, V. (2019). Digital Transformation Is Not About

- Technology. *Harvard Business Review*, 13(March), 2–7.
<https://hbr.org/2019/03/digital-transformation-is-not-about-technology>
- Teece, D., Peteraf, M., & Leih, S. (2016). Dynamic Capability and Organizational Learning. *California Management Review*, 58(4), 13–36.
- Teece, D., Peteraf, M., & Sovhi, L. (2015). Dynamic Capability and Organizational Learning. *Academy of Management Review*, 14(8), 433–450.
<https://doi.org/10.14955/amr.140802>
- Teece, D., Pisano, G., & Shuen, A. (2009). Dynamic capabilities and strategic management. *Knowledge and Strategy*, 18(March), 77–116.
<https://doi.org/10.1093/0199248540.003.0013>
- Verhoef, P. C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Qi Dong, J., Fabian, N., & Haenlein, M. (2021). Digital transformation: A multidisciplinary reflection and research agenda. *Journal of Business Research*, 122(July 2018), 889–901.
<https://doi.org/10.1016/j.jbusres.2019.09.022>
- Vial, G. (2019). Understanding digital transformation: A review and a research agenda. *Journal of Strategic Information Systems*, 28(2), 118–144.
<https://doi.org/10.1016/j.jsis.2019.01.003>
- Vuori, T. O., & Huy, Q. N. (2022). Regulating Top Managers' Emotions during Strategy Making: Nokia's Socially Distributed Approach Enabling Radical Change from Mobile Phones to Networks in 2007–2013. *Academy of Management Journal*, 65(1), 331–361. <https://doi.org/10.5465/amj.2019.0865>
- Wahal, S., & McConnell, J. J. (2000). Do institutional investors exacerbate managerial myopia? *Journal of Corporate Finance*, 6(3), 307–329.
[https://doi.org/10.1016/s0929-1199\(00\)00005-5](https://doi.org/10.1016/s0929-1199(00)00005-5)
- Zhu, Q., Hu, S., & Shen, W. (2020). Why do some insider CEOs make more strategic changes than others? The impact of prior board experience on new CEO insiderness. *Strategic Management Journal*, 41(10), 1933–1951.
<https://doi.org/10.1002/smj.3183>

2. Appendices

Appendix 1: Codes

2.1. Appendix 2 – Consistency matrix

Appendix 2: Informed consent letter for interviews

Re: Interview for the purpose of completing research for an MPhil Corporate Strategy

Dear Sir/Madam

I am conducting research on the influence of dedicated institutional investors on digital transformation strategic decision-making.

Our interview is expected to last 60 minutes to 90 minutes, and will help me understand what role does the commitment of dedicated institutional investors play in empowering key decision makers of investee firms to pursue long-term digital transformation strategic decisions with uncertain outcomes.

Your participation is voluntary, and you can withdraw at any time without penalty. By signing this letter, you are indicating that you have given permission for:

- the interview to be recorded;
- the recording to be transcribed by myself, who will be subject to a standard non-disclosure agreement;
- verbatim quotations from the interview to be used in the report, provided they are not identified with your name or that of your organisation;
- the data to be used as part of a report that will be publicly available once the examination process has been completed; and
- all data to be reported and stored without identifiers.

If you have any concerns, please contact my supervisor or me. Our details are provided below.

Researcher name: Andiswa Mjuleka
Whitaker

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Phone: +27 73 338 8281

Research supervisor name: Prof. Louise

Email: WhittakerL@gibs.co.za

Phone: +27 11 771 4174

Signature of participant: _____

Date:

Signature of researcher: _____

Date:

Code	Category	Theme	
Research sub-question 1: Why do investee companies pursue digital transformation?			
Research sub-question 1(a): What do investee companies understand by digital transformation?			
Convenience	Responding to a changing world and staying relevant	Responding to a changing world by using technology for value creating transformation	
Consistent user experience			
Increasing access to the internet			
Digital disruption			
Changes in technology			
Respond to changing world			
Staying relevant			
Technology is a tool			Using technology as a tool
Business transformation			Transforming the organisation across the different functions
Cross functional			Ensuring value creation
Value creation	Aligned with organisational strategy	Core to an organisation's strategy	
Solve a pain point			
Core to strategy			
Alignment with strategic objectives			
Enabler of strategy			
Changes the organisation in some way			
Selection of system and service provider			
Difficult to unwind	Strategic decisions require capital		
Strategic decisions require capital			
Research sub-question 1(b): What are the drivers of digital transformation?			
Competitive advantage	Competitive advantage and competitive differentiation	A customer centric approach for market share protection or gain, and new revenue streams	
Competitive differentiation			
Customer engagement	Customer centricity		
Customer value add			
Customer stickiness and retention	Defend existing market share, grow market share, and/or generate new revenue streams		
Market share gain	It is a business imperative and failure to adopt digital transformation can pose an existential threat.		
Access to new markets			
Business imperative	Automation, digitalisation, data analytics, Information accuracy and integration of systems	Integrated, cheaper, better, faster, safer and scalable processes free up employees to focus on higher level activities	
Existential threat			
Automation			
Digitalisation			
Data analytics			
More accurate information			
Integration of systems and processes			
Cost savings			
Safer			
Faster processes			
Archaic SA systems, processes and people organograms	Cheaper, safer, faster, better, scalable, flexible and integrated processes, and systems		
Business processes are enablers of digital transformation			
Operational capabilities			
Operational efficiencies			
Flexibility			
Improve controls			
Expand product portfolio			
Scale			
Human computer hybridity			Employees can focus on high level tasks and machines on operational lower level tasks
Desire and willingness to adopt digital transformation			Desire and willingness of investee companies
Covid accelerated adoption	External factors		
Market maturity impacts adoption rate			
Customer adoption rate			
External uncontrollable factors can slow implementation			
Life stage of organisation	Other investee company specific factors		
Varies from investee to investee			

Code	Category	Theme
Research sub-question 2: What factors influence the key decision makers during the digital transformation decision making process?		
Uncertainty of outcomes	Unchartered territory and uncertainty	Uncertainty/risk drives resistance to change
Unchartered territory		
Reluctant to change	Resistance to change	
Fear of change	Fear of the unknown	
Fear of job loss		
Fear could be due to age		
Anxiety	Other factors that drive resistance to change	
Negative perception		
Skepticism		
SA is no stranger to disruption		
Conflicting priorities		
Doesn't affect guaranteed remuneration	No impact on fixed remuneration	Financial incentives and career prospects
Performance based incentives and increases	Indirect link to performance based incentives	
Appropriate incentive structure	Appropriate incentive structure	
Skin in the game	Wealth creation	
Repercussions on career	Impact on career prospects	Behavioural and emotional factors, and regulation mechanisms
Personal views and behaviour	Impact of personality, seniority and skill on decision making	
Impact of skill, seniority and personality	Impact of emotions on decision making	
Emotions impede decision making		
Negative emotions		
Positive emotions		
Body language		
Lighter tone for low stake discussions	Regulation mechanisms	
Governance structures		
CEO/Chair diffuses emotions		
Stand up for yourself	Innovation and growth culture	
Maturity of the team and individuals		
Encourage innovation	Alignment of culture with digital transformation objectives	Organisational culture
Appetite for growth		
Fail fast culture		
Rapid prototyping		
Culture fit		
Culture of organisation	Collaborative culture	
Investors have limited influence on the culture		
Collaboration		
Lack of collaboration		

Research sub-question 3: How can institutional investors assist investee companies to pursue digital transformation?		
Lack of meeting of minds due to a knowledge gap	Identifying differences	identifying and addressing differences in understanding
Lack of meeting of minds if the expected return on investment is not satisfactory for the investor		
Lack of meeting of minds as investors do not have a full understanding of what happens on the ground		
Evidence-based	Addressing differences in understanding	
Company and investor learn together		
Digitalisation as a condition precedence in deals		
Active management investment style	A non-executive guidance and advisory role	Playing a guidance and advisory role
Type of ownership influences involvement of investors		
Non-executive role		
Non executives review strategy formulated by executives		
Guidance and advisory role		
Investors provided limited guidance on digital transformation		
Management in control		
Executives have freedom to run the business		
Autonomy to teams		
Board member competence and skill		
Lack of investor experience on digital transformation		
Portfolio approach		
Extensive business networks and financial connections	Stakeholders	
Solution oriented investors		
Limited investor input on the technology	Step 1: idea generation	
Merger and acquisition opportunities		
CEO, CFO, CTO, some employees, board members	Step 2: Gather relevant information	
Closer to the action		
Investor generated ideas	Step 3: Compiling a business case - include business rationale	
Idea generation		
Eliminate the noise	Step 3: Business case components - Revenue, cost, valuation and return analysis	
Focus on relevant information		
Buzzword	Step 3: Business case components - Qualitative considerations	Assessment of proposals, approval of decisions, allocation of capital
Business case		
Positioning the opportunity	Step 3: Business case components - Opportunity cost analysis	
Revenue generation		
Opportunity cost	Step 4 & 5 (Part 1): Evaluation supporting evidence	
Cost benefit analysis		
Return on investment	Step 4 & 5 (Part 2): Internal committee/forum approvals and Board approval	
Assess for value creation		
Enhance valuation of the organisation	Step 6: Resource allocation and availability	
Execution timeframe		
Assess long-term impact	Step 7: Monitoring and valuation	
Alignment with strategic objectives		
Softer issues are difficult to measure	Risk identification and classification	
Execution framework		
Prioritise	Risk assessment & Risk appetite	
Further research and additional supporting evidence		
Limited to no sharing of information	Risk mitigation	Encourage digital transformation uncertainty/risk management
Use available knowledge and assumptions		
Governance structures	Risk monitoring and reporting	
Majority voting		
Approval level depends on the nature of the decision	People centrality	
Decision making authority matrix		
Digital transformation committees/forums	Stakeholder buy-in and alignment	Stakeholder buy-in and change management
Capital allocation		
Resource allocation	Change management	
Management ability and capacity to execute		
Benchmarking	Change management	
Simple metrics to assess progress		
Track progress	Change management	
Execution risk		
Cyber security	Change management	
Innovation risk		
Timing delays	Change management	
Investor protection from reputational risk		
Quantifiable, calculated and articulated risk	Change management	
Industry affects risk appetite and level of innovation		
Appetite for risk	Change management	
Exit strategy for failing initiatives		
Minimum viable product	Change management	
Run parallel systems		
Small incremental changes	Change management	
Did not make incremental changes		
Diversified portfolio of initiatives	Change management	
Lean and agile testing		
Assumptions continually tested	Change management	
Leverage past experience		
Partnerships	Change management	
Risk sharing with customer		
Tweak as you go	Change management	
Work extra hours to mitigate execution risk		
Don't get married to an idea	Change management	
Measure, pilot, see results and then implement		
Mitigants to fear of cyber security	Change management	
Mitigants to information constraints		
Employee satisfaction	Change management	
Track progress		
People	Change management	
Human centric approach		
Succession planning	Change management	
People on the fence		
User centric approach	Change management	
Being heard		
Effects on people	Change management	
Stakeholder buy-in		
Shareholder alignment	Change management	
Cross functional		
Stakeholder management	Change management	
Consult and involve users		
Communicate vision	Change management	
Constant communication		
Informal discussions with board members	Change management	
Change management document		
Change management is an enabler of digital transformation	Change management	

2.2. Appendix 2: Consistency matrix

Research Questions	Literature Review	Data collection tool	Data analysis
Research sub-question 1: To what extent and how does the uncertainty of digital transformation outcomes affect the decision makers' appetite/propensity to pursue digital transformation strategic decisions?	(Kannan-Narasimhan & Lawrence, 2018); (Dong, 2021) Section 2.1.1.2, page 7, paragraph 1	Qualitative survey with in-depth interviews. Key decision maker interview questions: KDQ 1, KDQ 2, KDQ 3, KDQ 4.1, KDQ 4.2 Dedicated institutional investor interview questions: DIQ 1, DIQ 2, DIQ 3, DIQ 4.1, DIQ 4.2	Coding and identifying themes. Analysis of identified themes and deriving conclusions.
Research sub-question 2: What differences exist in the understanding of opportunities between investors and key decision makers, and how can dedicated institutional investors leverage these differences to convince key decision makers to pursue a digital transformation strategy with uncertain outcomes?	(Kannan-Narasimhan & Lawrence, 2018) Section 2.1.1.2 , page 7, paragraph 2	Qualitative survey with in-depth interviews. Key decision maker interview schedule questions: KDQ 5.1, KDQ 5.2, KDQ 5.3 Dedicated institutional investor interview questions: DIQ 5.1, DIQ 5.2, DIQ 5.3	Coding and identifying themes. Analysis of identified themes and deriving conclusions.
Research sub-question 3: How and to what extent are dedicated institutional investors involved in digital transformation	(Oehmichen et al., 2021) (Harford et al.,	Qualitative survey with in-depth interviews. Key decision maker interview questions: KDQ 6, KDQ 7.1, KDQ 7.2, KDQ 7.3, KDQ 8	Coding and identifying themes.

<p>strategy decision-making process of investee firms?</p>	<p>2018) Section 2.1.2.1; page 8, paragraph 3; (Oehmichen et al., 2021) Section 2.1.2.3 page 10, paragraph 3.</p>	<p>Dedicated institutional investor interview questions: DIQ 6, DIQ 7.1, DIQ 7.2, DIQ 8</p>	<p>Analysis of identified themes and deriving conclusions.</p>
<p>Research sub-question 4: To what extent and how do cognitive factors, investee company political dynamics, motivational factors, and chance affect (positive/negative) the key decision makers during the digital transformation decision making process?</p>	<p>Section 2.1.3.5; page 17; paragraph 2 which is a summary based on: - (Chin et al., 2021) Section 2.1.3 page 12, paragraph 2 - Section 2.1.3.3.1.1. (Laureiro-Martínez & Brusoni, 2018), page 14, para 2; (Hoppmann et al., 2019) (Vuori & Huy, 2022), page 14, paragraph 3 - Section 2.1.3.3.1.2. Raffaelli et al.</p>	<p>Qualitative survey with in-depth interviews. Key decision maker interview questions: KDQ 9, KDQ 10 Dedicated institutional investor questions: DIQ 9, DIQ 10</p>	<p>Coding and identifying themes. Analysis of identified themes and deriving conclusions.</p>

	<p>(2019), page 15, paragraph 1</p> <ul style="list-style-type: none"> - Section 2.1.3.3.2. (Liu et al., 2021)., page 15, paragraph 2 - Section 2.1.3.4. (Choi et al., 2021), page 16, paragraph 3 		
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2.3. Appendix 3 - Interview schedules

Below is a summary of interview questions that are mapped to the sub-ordinate research questions.

2.3.1. Appendix 3.1 - Key decision maker interview schedule

Research sub-questions	Key decision maker Interview Questions (KDQ)
<p>Research sub-question 1: To what extent and how does the uncertainty of digital transformation outcomes affect the decision makers' appetite/propensity to pursue digital transformation strategic decisions?</p>	<ul style="list-style-type: none"> • KDQ 1: Using your own words, describe digital transformation. • KDQ 2: What do you think are the benefits and risks of digital transformation? • KDQ 3: Using your own words describe a strategic digital transformation decision? • KDQ 4: For the strategic digital transformation decisions where you were involved in the decision-making process: <ul style="list-style-type: none"> ○ KDQ 4.1: Were there any potential outcomes with a high level of uncertainty? ○ KDQ 4.2: How did this high level of uncertainty affect your appetite/propensity as a key decision maker to pursue that strategic digital transformation decision with uncertain outcomes?
<p>Research sub-question 2: What differences exist in the understanding of opportunities between investors and key decision makers, and how can dedicated institutional investors leverage these differences to convince key decision makers to pursue a digital</p>	<ul style="list-style-type: none"> • KDQ 5: For the strategic digital transformation decisions that you were involved in: <ul style="list-style-type: none"> ○ KDQ 5.1: Was there any difference in understanding of opportunities that were linked to that decision between you as a decision maker and the dedicated institutional investor representative? What were these differences? ○ KDQ 5.2: Where there were differences, in what instances and how did the dedicated institutional investor convince you to pursue that strategic digital transformation decision?

<p>transformation strategy with uncertain outcomes?</p>	<ul style="list-style-type: none"> ○ KDQ 5.3: Where there were differences, in what instances and how did the dedicated institutional investor fail to convince you to pursue that strategic digital transformation decision?
<p>Research sub-question 3: How and to what extent are dedicated institutional investors involved in digital transformation strategy decision-making process of investee firms?</p>	<ul style="list-style-type: none"> ● KDQ 6: Describe the decision-making process of a strategic digital transformation strategy in your organisation. ● KDQ 7: Have you directly or indirectly participated in the decision-making process for a strategic digital transformation decision? If yes, <ul style="list-style-type: none"> ○ KDQ 7.1 What was your role? ○ KDQ 7.2: Who were the key decision makers and what was the role of each? ○ KDQ 7.3 Did you interact with the dedicated institutional investor representative? Describe your interaction with them ● KDQ 8: Describe the involvement of dedicated institutional investors in the investee's digital transformation strategy decision-making process?
<p>Research sub-question 4: To what extent and how do cognitive factors, investee company political dynamics, motivational factors, and chance affect (positive/negative) the key decision makers during the digital transformation decision making process?</p>	<ul style="list-style-type: none"> ● KDQ 9: Describe the cognitive factors, organisational political dynamics, motivational and any other factors that have affected (positively or negatively) you as a key decision maker when making digital transformation strategy decisions? ● KDQ 10: In the strategic digital transformation decisions that you have been involved in, how have dedicated institutional investors influence any of the factors that you described in KDQ9 or impact thereof?

2.3.2. Appendix 3.2 - Dedicated institutional investor interview schedule

Research sub-questions	Dedicated institutional Interview Questions (DIQ)
<p>Research sub-question 1: To what extent and how does the uncertainty of digital transformation outcomes affect the decision makers' appetite/propensity to pursue digital transformation strategic decisions?</p>	<ul style="list-style-type: none"> • DIQ 1: Using your own words, describe digital transformation. • DIQ 2: What do you think are the benefits and risks of digital transformation? • DIQ 3: Using your own words describe a strategic digital transformation decision? • DIQ 4: For the strategic digital transformation decisions where you were involved in the decision-making process: <ul style="list-style-type: none"> ○ KDQ 4.1: Were there any potential outcomes with a high level of uncertainty? ○ KDQ 4.2: In your view, how did this high level of uncertainty affect the appetite/propensity of key decision makers to pursue that strategic digital transformation decision with uncertain outcomes?
<p>Research sub-question 2: What differences exist in the understanding of opportunities between investors and key decision makers, and how can dedicated institutional investors leverage these differences to convince key decision makers to pursue a digital transformation strategy with uncertain outcomes?</p>	<ul style="list-style-type: none"> • KDQ 5: For the strategic digital transformation decisions that you were involved in: <ul style="list-style-type: none"> ○ KDQ 5.1: Was there any difference in understanding of opportunities that were linked to that decision between the key decision makers and you as the dedicated institutional investor representative? What were these differences? ○ KDQ 5.2: Where there were differences, in what instances and how did you as a dedicated institutional investor convince key decision makers to pursue that strategic digital transformation decision? ○ KDQ 5.3: Where there were differences, in what instances and how did you as the dedicated institutional investor fail to convince the key decision makers to pursue that

<p>Research sub-question 3: How and to what extent are dedicated institutional investors involved in digital transformation strategy decision-making process of investee firms?</p>	<p>strategic digital transformation decision?</p> <ul style="list-style-type: none"> • KDQ 6: Describe the decision-making process of a strategic digital transformation strategy in the investee companies that your firm is invested in. • KDQ 7: Have you directly or indirectly participated in the decision-making process for a strategic digital transformation decision of an investee firm? If yes, <ul style="list-style-type: none"> ○ KDQ 7.1: Who were the key decision makers and what was the role of each? ○ KDQ 7.2: Did you as the dedicated institutional investor representative interact with the key decision makers? Describe your interaction with them. • KDQ 8: Describe the involvement of dedicated institutional investors in the investee's digital transformation strategy decision-making process?
<p>Research question 4: To what extent and how do cognitive factors, investee company political dynamics, motivational factors, and chance affect (positive/negative) the key decision makers during the digital transformation decision making process?</p>	<ul style="list-style-type: none"> • KDQ 9: Describe the cognitive factors, organisational political dynamics, motivational and any other factors that you think have affected (positively or negatively) key decision makers when making digital transformation strategy decisions? • KDQ 10: In the strategic digital transformation decisions that you have been involved in, how have you as the dedicated institutional investors influenced any of the factors that you described in KDQ9 or the impact thereof?

Appendix 3

Interview schedule for dedicated institutional investor representatives

General/ context

1. How would you describe digital transformation in the context of your investee company/(ies)
2. Why are your investee companies pursuing digital transformation?
3. How would you describe a digital transformation strategic decision?

Involvement of dedicated institutional investors in the digital transformation strategy decision-making process of investee firms

4. Describe the decision-making process taken in pursuit of digital transformation strategic decisions in your investee companies.
5. Who are the key external and internal role players in the digital transformation strategic decision-making process and what are their roles?
6. Describe your involvement as a dedicated institutional investor in your investee company/(ies) digital transformation strategic decision-making process.

The questions below should be answered in the context of the digital transformation strategic decision-making process/(es) that you were/are involved in.

Understanding of digital transformation opportunities

7. Tell me about a situation/(s):
 - 7.1. Where there were differences in your understanding of a digital transformation strategic opportunity or elements thereof, as a dedicated institutional investor representative compared to the understanding of the investee company's key decision makers.
 - 7.2. Where there were differences in understanding, in what instances and how did you as a dedicated institutional investor representative convince the key decision makers of the investee firm to pursue that digital transformation strategic decision?
 - 7.3. Where there were differences in understanding, in what instances and how did you as the dedicated institutional investor fail to convince the key decision makers of the investee firm to pursue that digital transformation strategic decision?

Assessment of potential outcomes

8. Assessment of potential outcomes
 - 8.1. How were the potential outcomes of the digital transformation strategic decisions assessed?
 - 8.2. In the assessment of potential outcomes, tell me about a situation where there was perceived uncertainty of outcomes.
 - 8.3. How did the investee company key decision makers deal with the uncertainty of outcomes?
 - 8.4. How did you as an investor deal with the uncertainty of outcomes?

Other factors

9. Other factors affecting the digital transformation decision making process:
- 9.1. What else affected the decision-making process?
- 9.2. How did the investee company key decision makers (as individuals and as a decision-making group) deal with information limitations and time constraints during the decision-making process?
- 9.3. Describe a situation where you observed decision makers displaying emotions (negative or positive) during the decision-making process. What triggered those emotions, and how did the key decision makers deal with them?
- 9.4. What political and power dynamics (amongst key decision makers and/or with dedicated institutional investors) have you observed during the decision-making process?
- 9.5. How does the success or failure of the digital transformation process affect the career prospects and compensation of the investee company's key decision makers?
- 9.6. What motivates key decision makers of investee firms to pursue a digital transformation strategy?
- 9.7. Based on your experience, have you as a dedicated institutional investor influenced any of the factors in 9.1 to 9.6?

Appendix 5

Interview question guide – Key decision makers

General/ context

8. How would you describe digital transformation in the context of your organisation.
9. Why is your company pursuing digital transformation?
10. As an individual what motivated you to pursue a digital transformation strategy?
11. How would you describe a digital transformation strategic decision?

Digital transformation strategy decision-making process

12. Describe the decision-making process taken in pursuit of digital transformation strategic decisions in your company.
13. Who are the key external and internal role players in the digital transformation strategic decision-making process and what are their roles?
14. Describe the involvement of the investors in your company's digital transformation strategic decision-making process.

Understanding of digital transformation opportunities

15. Tell me about a situation/(s):
 - 8.1. Where there were differences in the investor's understanding of a digital transformation strategic opportunity or elements thereof, compared to your understanding as a key decision maker.
 - 8.2. Where there were differences in understanding, in what instances and how did the investor convince you to pursue that digital transformation strategic decision?
 - 8.3. Where there were differences in understanding, in what instances and how did the investor fail to convince you to pursue that digital transformation strategic decision?

Assessment of potential outcomes

16. Assessment of potential outcomes
 - 9.1. How were the potential outcomes of the digital transformation strategic decisions assessed?
 - 9.2. In the assessment of potential outcomes, tell me about a situation where there was perceived uncertainty of outcomes.
 - 9.3. How did this uncertainty affect your desire as a key decision maker to pursue that digital transformation strategic decision with uncertain outcomes.

Other factors

10. Other factors affecting the digital transformation decision making process:

- 10.1. What else affected the decision-making process?
- 10.2. How did you (as an individual and as the decision-making group) deal with information limitations and time constraints during the decision-making process?
- 10.3. Describe a situation where emotions (negative or positive) were stimulated in you as an individual during the decision-making process. What triggered those emotions, and how did you deal with them?
- 10.4. Describe a situation where you observed other role players showing/displaying emotions (negative or positive) during the decision-making process. How and by whom were the emotions addressed?
- 10.5. What political and power dynamics (amongst key decision makers and/or with dedicated institutional investors) have you observed during the decision-making process?
- 10.6. How does the success or failure of the digital transformation process affect your career prospects and compensation as a key decision maker?
- 10.7. Based on your experience, have investors influenced any of the factors in 10.1 to 10.6?

3. Interview schedules

Below is a summary of interview questions that are mapped to the research sub-questions. The interview questions will be used as a guideline. The researcher will be flexible in her interview approach as an interviewee's answer to one question may address

aspects of another question.

3.1. Key decision maker interview schedule

Research sub-questions	Key decision maker Interview Questions (KDQ)
General/ context	<ul style="list-style-type: none"> • KDQ 1: How would you describe digital transformation in the context of your organisation, and why are you pursuing it? • KDQ 2: How would you describe a digital transformation strategic decision? <p>It will be important to establish the interviewee's understanding of the concept of a digital transformation strategic decision, and their ability to relate it to their organisation. If the interviewee has not heard of the concept, a description of the concept will be provided as follows:</p> <p>Digital transformation is "a process wherein organisations respond to changes taking place in their environment by using digital technologies to alter their value creation" (Vial, 2019, p.119) or "organisational change that is triggered and shaped by the wide-spread diffusion of digital technologies" (Hanelt et al., 2021, p. 1160).</p> <p>A strategic decision is a decision that is "important in terms of the actions taken [by an organisation], the resources committed, or the precedents set" (Eisenhardt & Zbaracki, 1992).</p> <p>A digital transformation decision is a strategic decision as it requires digital technology and human resource commitment (Hanelt et al., 2021), and it affects a firm's strategic direction, processes, and competitive position through information technology (IT) enabled value creation (Vial, 2019).</p>
Research sub-question 1: How are dedicated institutional investors involved in digital transformation strategy decision-making process of investee firms?	<ul style="list-style-type: none"> • KDQ 3: Describe the decision-making process taken in pursuit of a digital transformation strategic decision in your organisation. • KDQ 4: Who are the key external and internal role players in the digital transformation strategic decision-making process and what are their roles? • KDQ 5: Describe the involvement of dedicated institutional investors in your organisation's

<p>Research sub-question 2: What differences exist in the understanding of opportunities between investors and key decision makers, and how can dedicated institutional investors leverage these differences to convince key decision makers to pursue a digital transformation strategy with uncertain outcomes?</p>	<p>digital transformation strategic decision-making process and your experience of interacting with dedicated institutional investors during this process.</p> <ul style="list-style-type: none"> • KDQ 7: For digital transformation strategic decisions that you were involved in, tell me about a situation/(s): <ul style="list-style-type: none"> ○ KDQ 7.1: Where there were differences in the dedicated institutional investor's understanding of a digital transformation strategic opportunity or elements thereof, compared to your understanding as a key decision maker. ○ KDQ 7.2: Where there were differences in understanding, in what instances and how did the dedicated institutional investor convince you to pursue that digital transformation strategic decision? ○ KDQ 7.3: Where there were differences in understanding, in what instances and how did the dedicated institutional investor fail to convince you to pursue that digital transformation strategic decision?
<p>Research sub-question 3: How does the uncertainty of digital transformation outcomes affect the decision makers' appetite/propensity to pursue digital transformation strategic decisions?</p>	<ul style="list-style-type: none"> • KDQ 8: For digital transformation strategic decisions where you were involved in the decision-making process: <ul style="list-style-type: none"> ○ KDQ 8.1: How were the potential outcomes assessed? ○ KDQ 8.2: In the assessment of potential outcomes, tell me about a situation where there was uncertainty of outcomes. What was the uncertainty and how did you deal with it? ○ KDQ 8.3: How did this uncertainty affect your desire as a key decision maker to pursue that digital transformation strategic decision with uncertain outcomes?
<p>Research sub-question 4: How do cognitive factors, investee company political dynamics, motivational factors, and chance affect (positive/negative) the key decision makers during the digital transformation decision making process, and how can dedicated institutional investors influence these factors during the digital transformation strategic decision-making process?</p>	<ul style="list-style-type: none"> • KDQ 9: For digital transformation strategic decisions where you were involved in the decision-making process: <ul style="list-style-type: none"> ○ KDQ9.1: What else affected the decision-making process? ○ KDQ 9.2: How did you (as an individual and as the decision-making group) deal with information limitations and time constraints during the decision-making process? ○ KDQ 9.3: Describe a situation where emotions (negative or positive) were stimulated in you as an individual during the decision-making process. What triggered those emotions, and how did you deal with them? ○ KDQ 9.4: Describe a situation where you observed other role players

	<p>showing/displaying emotions (negative or positive) during the decision-making process. How and by who were the emotions addressed?</p> <ul style="list-style-type: none"> ○ KDQ 9.5: What political and power dynamics (amongst key decision makers and/or with dedicated institutional investors) have you observed during the decision-making process? ○ KDQ 9.6: How does the success or failure of the digital transformation process affect your career prospects and compensation as a key decision maker? ○ KDQ 9.7: As an individual what motivated you to pursue a digital transformation strategy? ○ KDQ 9.8: Based on your experience, how have dedicated institutional investors influenced any of the factors in KDQ 9.1 to KDQ 9.7?
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3.2. Interview schedule for dedicated institutional investor representatives

<p>Research sub-questions</p> <p>General/ context</p>	<p>Dedicated institutional investor Questions (DII)</p> <ul style="list-style-type: none"> • DII 1: How would you describe digital transformation in the context of your investee company/(ies), and why are you pursuing it? • DII 2: How would you describe a digital transformation strategic decision? <p>It will be important to establish the interviewee's understanding of the concept of a digital transformation strategic decision, and their ability to relate it to their investee company/(ies). If the interviewee has not heard of the concept, a description of the concept will be provided as follows:</p> <p>Digital transformation is “a process wherein organisations respond to changes taking place in their environment by using digital technologies to alter their value creation” (Vial, 2019, p.119) or “organisational change that is triggered and shaped by the wide-spread diffusion of digital technologies” (Hanelt et al., 2021, p. 1160). A strategic decision is a decision that is “important in terms of the actions taken [by an organisation], the resources committed, or the precedents set” (Eisenhardt & Zbaracki, 1992).</p>
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	<p><i>A digital transformation decision is a strategic decision as it requires digital technology and human resource commitment (Hanelt et al., 2021), and it affects a firm's strategic direction, processes, and competitive position through information technology (IT) enabled value creation (Vial, 2019).</i></p>
<p>Research sub-question 1: How are dedicated institutional investors involved in digital transformation strategy decision-making process of investee firms?</p>	<ul style="list-style-type: none"> • DII 3: Describe the decision-making process taken in pursuit of a digital transformation strategic decision in your investee company. • DII 4: Who are the key external and internal role players in the digital transformation strategic decision-making process and what are their roles? • DII 5: Describe the involvement of dedicated institutional investors in your investee company's digital transformation strategic decision-making process and your experience of interacting with key decision makers of your investee company during this process.
<p>Research sub-question 2: What differences exist in the understanding of opportunities between investors and key decision makers, and how can dedicated institutional investors leverage these differences to convince key decision makers to pursue a digital transformation strategy with uncertain outcomes?</p>	<ul style="list-style-type: none"> • DII 7: For digital transformation strategic decisions that you were involved in, tell me about a situation/(s): <ul style="list-style-type: none"> ○ DII 7.1: Where there were differences in your understanding of a digital transformation strategic opportunity or elements thereof, as a dedicated institutional investor representative compared to the understanding of the key decision makers. ○ DII 7.2: Where there were differences in understanding, in what instances and how did you as a dedicated institutional investor representative convince the key decision makers of the investee firm to pursue that digital transformation strategic decision? ○ DII 7.3: Where there were differences in understanding, in what instances and how did you as the dedicated institutional investor fail to convince the key decision makers of the investee firm to pursue that digital transformation strategic decision?
<p>Research sub-question 3: How does the uncertainty of digital transformation outcomes affect the decision makers' appetite/propensity to pursue digital transformation strategic decisions?</p>	<ul style="list-style-type: none"> • DII 8: For digital transformation strategic decisions where you were involved in the decision-making process: <ul style="list-style-type: none"> ○ DII 8.1: How were the potential outcomes assessed? ○ DII 8.2: In the assessment of potential outcomes, tell me about a situation where there was uncertainty of outcomes. What was the uncertainty and how did the key decision makers deal with it? ○ DII 8.3: How did this uncertainty affect the key decision makers desire to pursue that

<p>Research sub-question 4: How do cognitive factors, investee company political dynamics, motivational factors, and chance affect (positive/negative) the key decision makers during the digital transformation decision making process, and how can dedicated institutional investors influence these factors during the digital transformation strategic decision-making process?</p>	<p>digital transformation strategic decision with uncertain outcomes?</p> <ul style="list-style-type: none"> • DII 9: For digital transformation strategic decisions where you were involved in the decision-making process: <ul style="list-style-type: none"> ○ DII 9.1: What else affected the decision-making process? ○ DII 9.2: How did the key decision makers (as individuals and as a decision-making group) deal with information limitations and time constraints during the decision-making process? ○ DII 9.3: Describe a situation where you observed decision makers displaying emotions (negative or positive) during the decision-making process. What triggered those emotions, and how did the key decision makers deal with them? ○ DII 9.4: What political and power dynamics (amongst key decision makers and/or with dedicated institutional investors) have you observed during the decision-making process? ○ DII 9.6: How does the success or failure of the digital transformation process affect the career prospects and compensation of key decision makers? ○ DII 9.7: What motivates key decision makers of investee firms to pursue a digital transformation strategy? ○ DII 9.8: Based on your experience, have you as a dedicated institutional investor influenced any of the factors in DII 9.1 to DII 9.7?
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Appendix 4 – Dedicated investor schedule