

**Organisational ambidexterity constructs during the  
implementation of digital transformation strategies**

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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**

How to strategically balance exploration and exploitation activities inside an organization is the greatest difficulty faced by leaders during the implementation of adaptive strategies. Exploration and exploitation are driven by opposing market and regulatory factors as well as diverse organizational learning capabilities. To date, organisational ambidexterity literature has focused primarily on how businesses balance their contradictory demands, paying particular attention to the drivers of ambidexterity and how human resource systems, senior leadership team attributes, contextual elements, and organisational structures contribute to the attempt at balancing explorative and exploitative activities. The mechanisms used to balance competing demands during the strategy implementation process have not been linked to adaptive strategy implementations such as digital transformation. This study contribute to the development of an integrated framework for adaptive strategy implementation by exploring the link between organisational ambidexterity and adaptive strategy execution.

This exploratory study, utilised qualitative research methods to collect new insights in order to fully understand the organisational ambidexterity constructs selected during the implementation of a digital transformation strategy. Further to this, the study identified the factors that influenced the selection of the selected constructs of ambidexterity. Senior leaders in the process of executing their digital transformation strategies in traditional pre-digital businesses were the subjects of twelve semi-structured, in-depth interviews.

This research study found that a link exists between organisational ambidexterity and the execution of an adaptive strategy like digital transformation.

## **KEYWORDS**

Organisational ambidexterity, dynamic capabilities, adaptive strategies, digital transformation

## 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 specialising 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 the research.

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**ABBREVIATIONS**

DT - Digital Transformation  
DTS - Digital Transformation Strategy

# 1 INTRODUCTION

## 1.1 BACKGROUND

A key driver of unparalleled advancement in society, the economy, and business is digitization (Titko, 2019). The trends of digitalization and globalization changed the fundamental nature of our lives (Titko, 2019). The European Commission predicts that the most significant global development in 2030 will be revolutionary economic and technological shifts (Titko, 2019). As a result, every aspect of society will be impacted by technological advancement (Titko, 2019). Digital transformation (DT) has therefore moved to the top of many CEOs' strategic agendas. This is due to how the nature of innovation and entrepreneurship has been profoundly changed over the last few years as a result of the widespread availability of emerging technologies (Nambisan et al., 2019). Executives, including top executives and board members, rank the potential for negative outcomes from DT as their top risk (Tabrizi, Lam, Girard, Irvin, 2019).

It is reported that close to seventy percent of DT initiatives are unsuccessful, and that millions of dollars is wasted on fruitless digitization projects (Tabrizi et al., 2019). Frequently, organisations start many DT programs concurrently, resulting in substantial organisational complexity (Johnk, Oesterie, Ollig, Riedel, 2020). However, literature or frameworks that explains how to orchestrate the interplay of digital transformation strategy (DTS) implementations and the business-as-usual activities in existing pre-digital organisations is lacking (Johnk et al., 2020).

DT encapsulates the potentially revolutionary effects of digital technologies on businesses. This suggests that established or traditional businesses may need to undergo significant changes to compete in emerging digital markets (Chanias, Myers, Hess, 2019). Organisations embarking on the implementation of a DTS can expect structural and contextual changes as the DT spectrum is known to be expansive (Johnk et al., 2020).

Pre-digital organisations primarily operate in traditional industries like financial services, automotive and retail, who performed well before the advent of digital technologies (Chanias et al., 2019). Even though the DT of these organisations are still in its infancy and the majority of their revenue streams still come from their traditional business models, they do recognise the possibility of integrating their core capabilities with new capabilities made possible by digitization (Sebastian, Riss, Beath, Mocker, Moloney,

Fonstad, 2017). Berghaus & Back, (2016) argues that it is imperative for leaders in these organisations to have an in-depth understanding of their existing business models. They need to have clarity of their intended future state and the roadmap to achieve their digital strategy objectives. It is observed that pre-digital organisations who are implementing DT strategies in highly volatile environments, typically balance their activities between exploratory and exploitative activities (Tumbas, Berente, Vom Brocke, 2017).

A major aspect of business strategy is the need to make definitive decisions on how much to invest in exploitation versus exploration activities (Tumbas et al., 2017; Weiser et al., 2020a). To be sustainable over the long term, an organization must respond to changing conditions with creative new approaches and organizational structural changes. (D. Teece, Peteraf, Leih, 2016). Similarly, without using established business models, organisations cannot invest in the future and maintain their competitive advantage (D. J. Teece, 2018). As such, successful organisations in an ever-changing market are ambidextrous, meaning, they are coordinated and efficient in the current context, but also capable of adjusting to future changes (Birkinshaw, Zimmerman, Raisch, 2016).

Results from empirical studies confirm that organisational ambidexterity assist organisations in achieving enhanced short-term performance results and sustainability in the long-term, due to their ability to react to innovative models and new digital technologies (Birkinshaw et al., 2016). Vial (2019a) contends that DT creates ambidexterity by default due to the change it introduces within organisations. This transformation includes the people, processes and structures of an organisation and not just technology (Tumbas et al., 2017).

Various emerging theories on organisational ambidexterity have merged in recent years and are encapsulated in distinct tensions of ambidexterity (Tarody, 2016). Each tension representing a construct in which organisational ambidexterity is embodied within the organisation (Tarody, 2016). Chakma, Paul & Dhir, (2021) argues that most organisations become ambidextrous by selecting either differentiation or integration as a construct. However, limited research exists that links constructs of organisational ambidexterity to the implementation of adaptive strategies like DT (Weiser, Jarzabkowski, Laamanen, 2020b).

Emerging research on adaptive strategy implementation has led to a renaissance in strategy execution research, but it has fragmented the field due to numerous underlying points of view behind the many perspectives (Weiser et al., 2020a). Weiser et al.(2020),

in their work on the adaptive turn of strategy execution, encourage the adoption of an integrated view of strategy execution, which merge the classic structural approach with the emergent adaptive approach, successfully fusing the old and the new. This creates a coordination problem in which the integration of socially constructed and heterogeneous perceptions and actions of employees throughout the business, into a cohesive execution pattern is complex (Weiser et al., 2020a). This coordination problem that exists, is the same tension that organisations experience when wanting to manage exploitative activities and explorative activities during the execution of adaptive strategies like DT (Chaniias et al., 2019; Popadiuk Luz, Kretschmer, 2018)

To date, very little theoretical or empirical studies of the processes involved in the implementation of an adaptive strategy like a DTS have been found (Weiser et al., 2020a). Even though top management teams are intrinsically motivated to promote the DT of processes, structures and business models, they are nevertheless confronted by major obstacles (Chaniias et al., 2019). Pre-digital organisations face a difficult balancing act between maximizing the value of what they already have (exploitation) and developing new digital capabilities (exploration) which are backwards-reconcilable with their existing infrastructure and processes (Svahn, Mathiassen, Lindgren, 2017). Despite these challenges, only a small amount of research has been done where DT is a critical element in the study of strategic change (Matt, Hess, Benlian, 2015). Although there are some studies into the micro foundations of strategic change, minimal attention has been given to DT in literature (Matt et al., 2015). To add to this leadership challenge, skilful executives recognize that strategy implementation is as important as strategy formulation, and that it will manifest as an initiator of a sustained competitive advantage (Engert & Baumgartner, 2016). Despite its importance to organisational performance and widespread consensus on the need of strategy research, as with DTS implementation, conceptual cognizance of the strategic implementation process is still in its infancy, and there is no foundation for new theoretical knowledge to be built on. (Pryor & Smith, 2019; Tawse, Tabesh, Robinson, 2020; Weiser et al., 2020a).

Strategy implementation, a dynamic, iterative, and complicated process, entails a wide range of actions taken by managers and staff members to materialize strategic plans and realize strategic goals (Weiser et al., 2020a). In light of this, de Oliveira, Carneiro, Esteves, (2019) define successful strategy implementation as the degree to which an organisation's actual actions are in line with its stated goals. Weiser et al. (2020a) argues that effective strategy implementation is known to be a fundamental constituent of why certain organisations transcend others, as even strategies emanating from well-

formulated plans cannot ensure success unless it is properly executed. As a result, research has consistently proven that the strategy execution process is far more complex than the formulation of the strategic plans, and many managers and organisations fail to implement business strategies effectively(Engert & Baumgartner, 2016).

Most attempts to successfully implement strategies have failed and the low success rate can be attributed to the disjointed approach used toward putting strategies into action (Weiser et al., 2020a). To date, existing literature on strategy implementation have concentrated primarily on certain subsets of the process, such as strategic control, the function of human resources, organisational culture and the dedication of middle management but there is a lack of a coherent knowledgebase and a conceptual framework to provide a holistic representation derived from the different schools of thought.

Weiser et al. (2020b) identified several gaps in the discourse based on the integrated view of strategy implementation. This includes the coordination problem that exists when organisations attempt to balance exploitative activities and explorative activities during the execution of their adaptive strategies(Weiser et al., 2020a). He emphasizes that there is currently no literature that links organisational ambidexterity to adaptive strategy implementation. Organisational ambidexterity provides context to the divergent activities of exploration and exploitation which is the basis of the coordination problem that exists during the implementation of an adaptive strategy like digital transformation.

(Nielsen et al., 2009; Pryor & Smith, 2019; Tawse et al., 2019, 2020; Weiser et al., 2020a).

## **1.2 RESEARCH PROBLEM**

The mechanisms used in an attempt to strategically balance the opposing requirements of explorative activities and exploitative activities within the organisation during the implementation of an adaptive strategy like digital transformation, is the key challenge that leaders experience in modern times (Weiser et al., 2020a). This is because exploration and exploitation originates from diverse organisational capabilities (Koryak et al., 2018; Weiser et al., 2020a). To date, literature on organisational ambidexterity primarily focus on how businesses balance their incongruous demands with specific attention given to the drivers of organisational ambidexterity (Jansen, Mom, Tarba,

Raisch, Lawton 2020). This caused researchers to contend that organisational ambidexterity is in fact a dynamic capability (Popadiuk et al., 2018).

Dynamic capabilities and ambidexterity theories have attributed to strategic management discourse that attempt to determine how organisations are able to balance conflicting demands but has never been directly linked to adaptive strategy implementation (Popadiuk et al., 2018; Weiser et al., 2020a).

This study sought to contribute towards an integrated framework for adaptive strategy implementation by linking organisational ambidexterity to an adaptive strategy implementation like digital transformation. This will be done by exploring the constructs of organisational ambidexterity selected during the implementation of a DTS and determining the factors that contributed to the selection of the constructs of ambidexterity. The study will examine ambidexterity, a dynamic capability, as organisational ambidexterity have not been linked to the integrative approach of adaptive strategy implementation (Weiser et al., 2020a).

Th research study will:

1. Identify the constructs of organisational ambidexterity selected by pre-digital organisations during the execution of their DTS
2. Identify the factors that contributed to the selection of the construct of organisational ambidexterity during the execution of the DTS
3. Link the constructs of ambidexterity and their contributing factors to adaptive strategy implementation using dynamic capabilities as a framework

## **1.3 SIGNIFICANCE**

### **1.3.1 SIGNIFICANCE FOR BUSINESS**

DT has become one of the most significant challenges facing enterprises in the digital age (Ebert & Duarte, 2018; Rachinger, Rauter, Muller, Vorraber, Schirgi, 2019; Saarikko, Westergren, Blomquist, 2020). The necessity of leveraging digitization to effect and implement business model innovation, compels organisations to re-look their culture, current capabilities and organisational structures, in order to determine which

technologies will assist them in achieving their organisational objectives. (Rachinger et al., 2019; Saarikko et al., 2020). More often than not, these dramatic changes necessitate that businesses reassess long-held beliefs and processes in order to design strategies that walk the line between exploitation and exploration (Saarikko et al., 2020). Because digitalization is ubiquitous and intertwined into the organisational DNA, awareness of the factors that supports or inhibit digital strategy implementation is imperative (Ritala, Baiyere, Hughes, Kraus, 2021). Ritala et al. (2021) argues that successful implementation of a digital transformation strategies is reliant on the mindset, capabilities and skills of the organization regardless of the technology used, even though it also plays an important factor.

As leaders of pre-digital organisations recognise the opportunity to merge their current ordinary capabilities and dynamic capabilities enabled by digital technologies, these leaders are creating the organisations digitization strategies (Sebastian Ina et al., 2017). These strategies take advantage of the digital economy and its ensuing benefits for business, rather than merely focussing on the technologies itself (Sebastian Ina et al., 2017). Although this study wish not to minimise the significance of developing effective strategies, research has proven that organisations generally find it challenging to implement their digital strategies effectively (Sebastian Ina et al., 2017; Weiser et al., 2020a). Implementation has been regarded as a strategic afterthought for a long time, as organisations focus mostly on strategy formulation and solely on the organisational structure during strategy implementation, despite the fact that the two are interdependent (Weiser et al., 2020a). In addition to this, top and middle management in positions of authority are sometimes deceived into believing that expressing a well-conceived strategy to the group is equivalent to its implementation (Weiser et al., 2020a). This study leans on the theory that successful strategy execution is the foundation of enacting an organisation's capabilities and is fundamental to achieving a sustained competitive edge (Tawse et al., 2019; Weiser et al., 2020a).

To be competitive in the digital economy, organisations must be in a position to execute their current activities flawlessly (Sebastian Ina et al., 2017). To accomplish this, they require ordinary capabilities that are robust and scalable (Sebastian Ina et al., 2017). This operational backbone that is created by ordinary capabilities, promotes operational excellence and efficiencies, whereas the new digital capabilities support agility in business and innovation (Sebastian Ina et al., 2017). Both ordinary and digital capabilities are dependent on the technology utilised, but what gives it the edge is the capabilities in business that technology makes possible (Sebastian Ina et al., 2017). Even

though many pre-digital organisations have been building their operational backbone for many years, research has proven that their ordinary capabilities do not support their digital strategies (Sebastian Ina et al., 2017).

Contrasting demands experienced within organisations during the implementation of their digital strategies has a disruptive impact on operations (Warner & Wager, 2019). Senior, middle and lower level leadership and their teams need multiple skillsets and capabilities to balance the contrasting demands of stability and agility (Warner & Wager, 2019). Velu, (2019) argues that organisations need different capabilities to unravel the paradox of managing an old business model and business model causing disruption at the same time. These organisational capabilities typically operate on two levels, the operational level, which focus on the efficient execution of activities (ordinary capabilities), and the micro foundation and higher order capabilities (dynamic capabilities), which focus on introducing different capabilities as well as the reorganisation of current ones (D. J. Teece, 2018). Even though ordinary capabilities can secure a competitive advantage, it is not able to sustain the competitive advantage over an extended period of time (Warner & Wager, 2019). The key challenge that leaders experience during the implementation of an adaptive strategy like digital transformation, is a mechanism to strategically balance explorative activities and exploitative activities in the organisation (Weiser et al., 2020a). Exploration and exploitation originates from diverse organisational learning capabilities and is driven by contradictory market and regulatory forces (Koryak et al., 2018; Weiser et al., 2020a).

Organisational ambidexterity, the ability of the organisation to balance current or traditional demands with its ordinary capabilities whilst being adaptable in a dynamic business context (Koryak et al., 2018). According to Weiser et al.(2020), to date, the dynamic capability, organisational ambidexterity, has not been linked to adaptive strategy implementation even though the integrative view of strategy implementation requires new insights into organisational routines, systems and processes in the achievement of a sustainable competitive advantage.

### **1.3.2 ACADEMIC AND SCHOLASTIC SIGNIFICANCE**

Over the past two decades, researchers have shifted their focus from the design of controls, organizational plans, systems, organizational structures and incentives for effective strategy implementation to learning about and better understanding the



adaptive dynamics thereof (Weiser et al., 2020a). As a result of this adaptive turn, researchers are no longer primarily interested in developing theoretical frameworks for implementing strategies, but rather an understanding of how actual businesses interpret and put these frameworks into action (Weiser et al., 2020a). This change has helped to revitalise and expand the field of strategy implementation research, but it created fragmentation within the field as a result of the fundamental philosophical differences between the two approaches (Tawse et al., 2019, 2020; Weiser et al., 2020a).

A distinction between strategy formulation and strategy execution was necessary in initial research in the field of strategic management as it provided researchers with a good understanding of the activities involved in each component of the strategic management process (Tawse et al., 2020). Strategy formulation was perceived as the most complex task in strategic management and that when organisations have organized their controls organisational structures, organisational systems and organisational processes, effectively, strategy execution will follow naturally (Tawse et al., 2020; Weiser et al., 2020a). It was later recognised that the strategy formulation and strategy implementation tasks were highly interdependent and integrated (Tawse et al., 2020; Weiser et al., 2020a).

Notwithstanding its potential as an consolidative theoretical perspective for expanding our understanding of strategy implementation, surprisingly little is known about how the attention of an organization influences its success or failure in the area of strategy implementation. (Weiser et al., 2020a). Based on the attention-based view, how businesses channel and distribute attention influences organisational behaviour and ultimately the outcomes of strategy implementation (Weiser et al., 2020a). In addition to the structural viewpoint, researchers have investigated the effectual move of attention from one sphere of focus to the other (Weiser et al., 2020a). Linking into this dichotomy, organisational ambidexterity have been widely studied as a result of the substantial performance improvements ambidextrous companies achieve during their lifetime (Chakma et al., 2021a). In the absence of dynamic capabilities, the organisation's constant search for innovation, experimentation, agility, mutability and new alternatives while optimizing existing processes, competencies, technologies, and knowledge can impede its ability to achieve efficiencies, implement change, and become ambidextrous (Popadiuk et al., 2018).

In order to apply adaptive methods, Koryak, Lockett, Hayton, Nicolaou, Mole (2018) contend that businesses needs to embrace an organisational paradox mindset that

enables them to move dynamically between ordinary capabilities (exploitation) and dynamic capabilities (exploration). In this context, a deeper understanding of the antecedents of exploitation and exploration is important due to a lack of literature linking ambidexterity to the application of adaptive strategies (Koryak et al., 2018; Weiser et al., 2020a).

Ever since the term dynamic capabilities was first introduced as the ability to "integrate, build, and reconfigure internal and external competences to address rapidly changing environments," the notion of dynamic capabilities became a pivotal theoretical lens in modern managerial sciences (Popadiuk et al., 2018, p640). Researchers agree that the function of dynamic capabilities is to restructure an organisation's resource base in an attempt to create a new configuration of resources, consistent with the organisation's strategic vision (Kump, Kessler, Engelman, Kebler, Schwelger, 2019). The differentiation between dynamic and ordinary capabilities is also an indication of this function. A company's value is created by its ordinary capabilities (e.g. finance management, logistics management, production management, etc), in contrast, dynamic capabilities go beyond ordinary ones by extending, modifying, and even creating new capabilities (Kump et al., 2019; D. J. Teece, 2014). Scholars believe that an organisation's performance may be sustained by a combination of ordinary and dynamic capabilities; nonetheless, the former alone is not enough to ensure the organisation's continued success in the market it operates in (Kump et al., 2019).

Explorative activities and exploitative activities are seen as two separate activities, despite the ongoing debate over how to strike a balance between the two. (Popadiuk et al., 2018). This study argues that there is a need to link organisational ambidexterity to the execution of adaptive strategies in an effort to resolve the tension that exists between exploitative activities and explorative activities during implementations of an adaptive strategies like DT (Birkinshaw et al., 2016; Popadiuk et al., 2018).

## **1.4 RESEARCH CONTRIBUTION**

Digital innovation, with its academic anchor in Information systems literature, is changing the essence of strategic processes within organisations (Nambisan, Wright, Feldman, 2019). Digital technologies have disruptive impacts on models of business, strategies and innovation (Hess & Horlacher, 2016). These strategies diverge from traditional transformation strategies in that digital technologies have introduced exponential

change in organisations resulting in volatility, uncertainty, complexity and ambiguity (VUCA) (Warner & Wager, 2019). According to Warner & Wager (2019) DT therefore introduces continuous strategic renewal through augmented capabilities, in an effort to create or enhance new business models. To date, research linking dynamic capabilities to DT is at an emergent stage (Velu, 2019).

It is theoretically possible to separate capabilities and strategy, but in practice, strategy is interwoven in an organisations dynamic capabilities (D. J. Teece et al., 2017). D. J. Teece et al., (2017) argues that although strategy is not seen as an absolute consequence of dynamic capabilities, yet, the two are interdependent constituents of a high-performing organisation. Warner & Wager (2019) expands on the interconnectedness of business models, dynamic capabilities and strategy and states that business models are a direct result of an organisations implemented strategy. He further states that strategy is the process of building an organisations dynamic capabilities to achieve a sustainable competitive advantage. An organisations dynamic capabilities therefore defines its business models (Warner & Wager, 2019). Warner & Wager(2019) concludes that dynamic capabilities is the conciliator between organisational strategies and the innovation processes that results in diverse and enhanced business models.

The environment in which organisations operate in is constantly shifting on multiple levels, including the macro, micro and industry levels (D. Teece et al., 2016). These shifts present organisations with the challenge of becoming dynamic and adapting aptly to the complex and diverse contexts in which it operates (D. Teece et al., 2016). The study of how businesses adapt to ever-accelerating technology and market shifts within the context of the framework of dynamic capabilities has accelerated the importance of this research topic within the field of strategic management (Kump et al., 2019). When it comes to an organisations' resource base, dynamic capabilities are those capabilities that are founded on transformation due to the introduction of innovative processes and allow the formations and expansion of innovative products and services (D. J. Teece et al., 2017). The emphasis on strategy implementation has therefore evolved from a structured approach to an adaptive or dynamic approach, as strategies are continuously modified to respond swiftly to internal or external opportunities and dangers (Weiser et al., 2020a).

Weiser et al.,( 2020a) acknowledge that even though research in the adaptive turn of strategy implementation provides an extensive explanation of how various types of

organisations are executing their strategies in practice, the deeper understanding has not resulted in a conceptual model that can be used to inform strategy formulation. Due to the dynamic and fast paced nature of business, a need exist to integrate strategy formulation and strategy implementation processes in the digital age. The aim of this study is to make a contribution to theory by contributing to the conceptual framework for adaptive strategy implementation with a focus on constructs of organisational ambidexterity during the implementation of an adaptive strategy like digital transformation.

Contextual antecedents of ambidexterity are under-researched in comparison to the structural antecedents thereof. Numerous studies have centred on mature multinational businesses which have effectively implemented ambidextrous architectures. However, little is known regarding the formation and development of ambidexterity in local businesses context in relation to the implementation of a DTS. As such, a need to comprehend how organisations or units of business create organisational environments which distinguish between exploratory activities and exploitative activities at the individual and managerial (Chakma et al., 2021a; Tarody, 2016; Zimmermann et al., 2015)

To achieve the research objective, an extensive literature review was done supported by a qualitative research design incorporating 12 interviews with top and middle managers in local pre-digital enterprises. This was done in an attempt to inform the theoretical as well as the practical inference of the collected data. The theory that informed the identification of the research gap is discussed in the next section.

## **2 LITERATURE REVIEW**

### **2.1 INTRODUCTION**

This chapter provide an holistic view of the most current body of knowledge and discourse regarding the relationship between adaptive strategy execution and organisational ambidexterity in the context of DT in pre-digital organisations.

First an overview of adaptive strategy implementation and the research gaps that exists in this field of study will be investigated. This is followed by an exploration of the notion of organisational ambidexterity, as ambidexterity has long been linked to the performance improvement in an organisation's immediate and longer term (Koryak et al., 2018). In addition to this, organisational ambidexterity was identified as a dynamic capability. The relationship between organisational ambidexterity and dynamic capabilities are therefore explored to further comprehend the factors that contribute to the selection of specific constructs of ambidexterity. Thereafter, a literature review of the concept of DT and the implementation of digital strategies in pre-digital organisations are done. DTS implementation is known to be adaptive in nature. Based on the current and past literature on DT there is a mutual understanding that DT does not only refer to technology, but also the value creation process through business model and organisational change (Chanias et al., 2019; Teichert, 2019). Lastly, the current literature linking organisational ambidexterity to strategy implementation is explored.

### **2.2 STRATEGY IMPLEMENTATION**

Strategy implementation has been identified as a leading emerging themes in the study of strategic management and organisation literature, as a result of the appeals of several academics for a greater focus on the subject (Weiser et al., 2020a). The focus in the study of strategy implementation shifted from a structured approach to an adaptive approach in recent years as strategies are constantly altered in order to quickly respond to internal or external opportunities and threats in an ever-changing environment (Weiser et al., 2020a). This shift was encouraged by researchers' need to migrate from a conceptual view of strategy implementation to a practical view of how strategies are enacted in organisations, as strategies were rarely implemented as intended (Weiser et

al., 2020a). Weiser et al. (2020a) argue that strategies are no longer just a set of agreed upon plans, but are being continuously shaped by organisational routines and administrative processes which specifically underpins the resource allocation process within the organisation. The consensus is that regardless of how eloquent a strategy is formulated, it is ultimately shaped by those who implement it by utilising the organisations inherent capabilities which are encapsulated in its roles, hierarchies, structures, processes and routines (D. J. Teece, 2018, 2019; Weiser et al., 2020a).

### **2.2.1 STRATEGY IMPLEMENTATION DEFINED**

According to Lopes et al.(2019), strategy implementation is about the shaping, building and enhancement of an organisations dynamic capabilities in favour of current and future demands. In their work, Tawse et al. (2020) defines strategy implementation as a "dynamic, iterative, and complex process that is comprised of various activities by managers and employees to turn strategic plans into reality in order to achieve strategic objectives" (p2). Weiser, et al. (2020) defines strategy implementation as: "The continuous interplay of three interrelated activities — conceptualizing, enacting, and coordinating — that enable an organisation to realize strategies through collective actions by organisational stakeholders." ( p 8). Further to this, Tawse et al., (2020) defines strategy implementation effectiveness as "the extent to which an organisation's implemented strategies corresponds to its strategic intentions" (p2). The definitions aligns to the assumption that a separation between formulation and implementation of strategic processes exists. Effective strategy implementation could therefore be achieved through the execution of processes(coordinating) that results in actions(enacting) and decisions on a continuous basis that eventually contributes to the overall organisational objectives (conceptualizing) or goals (Palladan et al., 2016; Weser, et al. 2019).

### **2.2.2 STRATEGY IMPLEMENTATION THEORIES**

Previously, strategy implementation was mainly underpinned by theoretical pillars like the contingency theory( the fit between strategy and structure), organisational control theory(how different control systems affects strategy) and the agency theory (vertical relationships between command and control and how it affects strategy implementation) (Weiser et al., 2020a). As a result early definitions of strategy implementation largely referred to the structural control view of strategy implementation which focused on

structures in the organisation and the accompanying controls that facilitated the operationalization of the strategic plan (Weiser et al., 2020a). Strategy implementation research therefore has concentrated mostly on a range of managerial practices that affect strategic implementation effectiveness.

These activities were classified according to structural and interpersonal process perspectives. The research provides useful insights about the antecedents of successful strategy execution, but it does not provide a full perspective of the relationship between constructs. Similarly, while strategy execution leans toward a variety of theoretical perspectives, a coherent explanation of the process that connects a wide variety of management behaviours to the efficacy of strategy execution does not exist (Chanias et al., 2019; Stettner & Aharonson, 2019; Tawse et al., 2019, 2020; Weiser et al., 2020a).

### **2.2.3 ADAPTIVE STRATEGY IMPLEMENTATION**

In the late 1990's researchers started exploring an adaptive view of strategy execution by referring to it in terms of the communication, the deciphering and realisation of the strategy (Weiser et al., 2020a). Ahearne et al., (2014) defined adaptive strategies from the perspective of middle managers' cross-organisational influence in the proposal, embedment and reshaping of business unit level strategies. This was a pivot from the original structural control view which was based on the premise that strategies are implemented top-down, to the premise that organisational strategies was influenced from the bottom up (Weiser et al., 2020a). Even though progress was made from the initial structural control view, there was a need to combine the two views as strategies were implemented both top down and bottom up from an adaptive strategy implementation perspective (Weiser et al., 2020a). Weiser et al., (2020a), therefore proposed the integrative approach to adaptive strategy execution as it combines both schools of thought and provides a holistic approach to strategy implementation. This integrative approach is based on three key elements, conceptualising, enacting and coordinating of strategies (Weiser et al., 2020a). It is the interplay between these three elements that produce the adaptive turn in strategy implementation and further research gaps.

## **2.2.4 THE COORDINATION PROBLEM**

The emergent research in adaptive strategy implementation contributed to a renaissance in the advancement of strategy implementation. However, it has caused fragmentation due to the diverse theories underpinning the various views (Weiser et al., 2020a). Weiser et al. (2020) propose the use of an integrated view of strategy implementation, combining the traditional structural approach and the emergent adaptive approach, effectively marrying the old with the new. This gives rise to a coordination problem where the integration of socially constructed and diverse perspectives and actions of employees across the organisation into a coherent pattern of execution is complicated (Weiser et al., 2020a).

Studies in the field of organisational ambidexterity examines how the coordination problem that exists between the building of efficiencies and the achievement of adaptation could be resolved through structural or contextual separation (Weiser et al., 2020a). Organisational ambidexterity, the ability of the organisation to equally manage current or traditional demands whilst being adaptable in an ever-changing environment have made a marked difference in the study of strategic management processes (Koryak et al., 2018). According to Weiser et al. (2020), organisational ambidexterity has not been linked to strategy implementation even though the integrative view requires new insights into organisational routines, systems and processes. Although impactful advancements was made in the last few years, in linking organisational ambidexterity to various theories, there is limited application of the theory to adaptive strategy implementation (Jansen et al., 2020; Weiser et al., 2020a).

## **2.2.5 PARADOXES AND FRICTIONS**

Adaptive strategy implementation is fraught with paradoxes, tensions and dualities due to friction that arise between the various organisational functions and actors as they attempt to reconcile the past and future state of the organisation (Tawse et al., 2019, 2020; Weiser et al., 2020a). Weiser et al. (2020a), propose that theoretical approaches that examines the tensions that exists when implementing adaptive strategies will contribute to the literature that will take the adaptive turn forward. This paradox lens could be useful in assisting top and middle managers in making strategic decisions that balance the dichotomy between exploitation and exploration as they navigate regulatory and market shifts (Ghemawat & Rivkin, 2014; Popadiuk et al., 2018; Weiser et al., 2020a; Yeow et al., 2018). The benefit of openly integrating the inherent tensions of adaptive strategy implementation into a



conceptual framework is that it contributes to the creation of feedback loops that informs strategy formulation and ultimately enabling adaptation (Nielsen et al., 2009; Tawse et al., 2019; Weiser et al., 2020a).

## **2.2.6 EXPLORATION AND EXPLOITATION**

The key challenge that leaders experience during the implementation of an adaptive strategy, is how to strategically find an equilibrium between explorative activities and exploitative activities within the organisation (Weiser et al., 2020a). Attaining and balancing exploitation and exploration, paves the way to success, even survival, but also generates difficult tensions. (Andriopoulos & Lewis, 2009).

Exploration and exploitation originates from diverse organisational learning capabilities and is driven by contradictory market and regulatory forces (Koryak et al., 2018; Weiser et al., 2020a). It is for this reason that scholars historically suggested that organisations concentrate on either exploration or exploitation in an effort to avert failure (Koryak et al., 2018). Lopes et al. (2019) in an attempt to solve the dichotomy of balancing exploitation and exploration, argues that two distinct approaches assist organisations in gaining a competitive advantage, the short-term approach advocates that organisations need to reinvent their products, services and ecosystems continuously in the dynamic market environment using dynamic capabilities (exploration), whereas the sustainability approach advocates that organisations need to build ordinary capabilities (exploitation) to sustain their competitive advantage in concert with meeting the extant market needs. This implies that organisations have to simultaneously focus on continuous value creation through product innovation, the innovation of business models and building of ordinary capabilities for the longer term (Lopes et al., 2019).

The two approaches introduces various pitfalls when implementing an adaptive strategy (Lopes et al., 2019). Concentrating exclusively on exploitation denotes a success trap which is an outcome of organisational inertia resulting in an inability to adapt to environmental shifts and negative growth (Chakma et al., 2021b). In contrast, concentrating solely on exploration leads to a failure trap or the proverbial 'all eggs in one basket' which could lead to organisational losses (Chakma et al., 2021b). Hughes (2018) argues that for organisation to be successful in adaptation, they must engage in both exploitation and exploration and based on research exploration seemed to be notoriously difficult.

According to Tarody, (2016), exploration is related to organic structures, distributed systems, innovation, improvisation, autonomy, chaos, market expansion and technologies whereas exploitation is characterised by inflexible structures, impervious organised systems, structured dependencies, routines, controlling behaviours ,red tape, established markets and traditional technologies. In the current business context a strong operational capability and a digital platform is required to achieve both the exploitative and exploratory objectives (Sebastian Ina et al., 2017). The organisation constantly have to choose between jointly desirable but competing exploitative and explorative objectives , even when the gains on explorative strategies are uncertain and less tangible (Berghaus& Back, 2016; Tawse et al., 2019; Zimmermann et al., 2015;Tarody, 2016).

Chakma et al. (2021b) argues that when engaging in existing markets, organisations focus on operational efficiencies and when engaging in emerging markets they employ radical innovation methodologies The ability to enact both exploitative and explorative innovation and adapt to constant environmental changes, organisations are well positioned to sustain their business in the long term (Chakma et al., 2021a).

### **2.3 ORGANISATIONAL AMBIDEXTERITY**

Organisational ambidexterity, the divide between exploratory and exploitative operations, where the exploitative activities are fixated on efficiencies, predictability and stability whilst the exploratory activities involves agility, reactiveness and innovation, is a mechanism used to effectuate an organisations competitive advantage (Chakma et al., 2021a; Popadiuk et al., 2018; Zimmermann et al., 2015). The concept of organisational ambidexterity arose from research into adaptive systems. Adaptive systems involves the study of adaptability in organisations during changes in technology and environment (Hughes, 2018). Traditionally, "ambidexterity" has been used in instances in which an organisation or business unit have to create parallel structures manage the stresses inherent in both the ideation and the actualization phases of an innovative project(Hughes, 2018). As a result, organisational tensions arise from the necessity to change structures in order to launch and later implement innovation, as well as from the reality that the structures required to do so are quite distinct from one another(Hughes, 2018). The ability of an organisation to balance these competing demands is indicative of its ambidexterity(Hughes, 2018).

Empirical evidence confirms that short-term growth and prolonged sustainability is a key result of organisational ambidexterity in dynamic and competitive markets (Jansen et al., 2020). Ambidextrous organisations have the capability to respond to competitive forces like emerging technologies and disruptive business models much better than their competitors notwithstanding that the conjunction of rudimentary different organisational capabilities, architectures and business processes creates incongruous challenges (Birkinshaw et al., 2016; Jansen et al., 2020). Ambidexterity therefore ultimately stems from the conflicting strategic decisions that leaders are faced with during their strategy implementation process and the subsequent trade-offs that they have to make in their quest for a competitive advantage (Tarody, 2016).

Hughes (2018) identifies 6 important constituents of organisational ambidexterity that links directly to organisational survival. "Firm survival", "trade-offs and balance", "magnitude", "simultaneity opposed to punctuation", "managing tension" and "synchronicity and dexterity" are elements linked to the concept of organisational ambidexterity in research to date (Hughes, 2018, p 11 ). Simultaneity is a prominent and constant theme in explanations of organisational ambidexterity. Although not explicitly stated, the concept of simultaneity appears in the majority of definitions, referring to the predisposition to "pursue both incremental and discontinuous innovation," "the ability to demonstrate alignment and adaptability across an entire business unit," and "develop exploratory and exploitative innovation concurrently in different organisational units." (Hughes, 2018, p11). Weiser et al., (2020a) argues that the only method of balancing efficiency (exploitation) and adaptation(exploration) is by separating the organisation structurally, temporally or contextually. He further states that this school of thought has not been linked to strategy implementation but could contribute extensively to the literature pertaining to an integrated view of the implementation of adaptive strategies (Weiser et al., 2020a).

According to Koryak et al.(2018), organisations must ensure its current viability by engaging in sufficient exploitation and ensure its future viability through exploration. Organisational ambidexterity has therefore captured the interest of researchers as it has been connected to organisational survival, organisational learning, innovations and competitive advantage (Koryak et al., 2018). D. J. Teece et al.( 2017), defines a capability as a series of tasks that permits an organisation to achieve specific outcomes. To date, dynamic capabilities and organisational ambidexterity are proven to thrive under similar conditions based on empirical findings which reinforces the significance of ambidexterity as a dynamic capability (Popadiuk et al., 2018). Popadiuk et al. (2018)

argues that ambidexterity is merely a mediator of the configuration of newly introduced resources to achieve a competitive edge but does not necessarily create it. Strategic responsiveness and dynamic capabilities are at the core of the competitive edge that organisations achieve under conditions of uncertainty (Nielsen et al., 2009; D. Teece et al., 2016).

### **2.3.1 ORGANISATIONAL AMBIDEXTERITY THEORIES**

The idea of an ambidextrous organisations originated in 1976 when researchers suggested that organisations should be adaptive to environmental, market and technological shifts (Chakma et al., 2021a). It is believed that organisational performance is the key outcome of organisational ambidexterity and focus on a number of theoretical approaches such as behavioural integration, paradoxical view, organisational learning, attention based view, contingency theory, upper echelon theory, knowledge based view and the dynamic capabilities approach (Jansen et al., 2020).

Behavioural integration perspective and the upper echelons theory purports that the top management team (TMT) facilitates ambidexterity through cross organisational collaboration and alignment whereas the organisational learning theory stress on the application of exploitative learning to obtain efficiencies and exploratory learning to become innovative (Koryak et al., 2018; Venugopal et al., 2019). The paradoxical and knowledge based view of ambidexterity leans on the fact that the opposing activities performed within an organisation requires different capabilities, knowledge processes, structures and strategies which results in tensions within the organisation. This is an expansion of the resource based view (Jansen et al., 2020; Koryak et al., 2018; Liu et al., 2021). According to the knowledge-based view (KBV), knowledge is the key tool for innovation and is therefore directly linked to ambidexterity because ambidexterity focus on incremental (exploitative) and radical(exploratory) innovation (Chakma et al., 2021b).

Small and medium enterprises (SMEs) who are typically resource constraint, become ambidextrous by relying on external knowledge and internal collaboration (Chakma et al., 2021b). Jansen et al., (2020) and Karadag, (2019) argues that utilising dynamic capabilities assist organisations to understand how resources and expertise are integrated , joined and reshaped for exploitative and explorative innovation in an attempt to achieve a sustainable competitive advantage. This solidifies organisational

ambidexterity as a dynamic capability that assist organisations to balance competing priorities whilst implementing their strategies (Popadiuk et al., 2018).

Research have traditionally focused on the structural aspect of organisational ambidexterity, which is embedded in the organisational design literature and separates exploration and exploitation into autonomous units, allowing for the paradox of simultaneous activities to be resolved, while also allowing for seamless integration and coordination at the organizational leadership level (Tarody, 2016). The contextual approach is the next significant and dominant concept of organisational ambidexterity(Tarody, 2016). Instead of structural separation, the leading method for achieving ambidexterity is to provide teams context that enable individual staff members to take part in explorative activities and exploitative activities (Tarody, 2016). This strategy eliminates coordination costs and allows organisation-wide adaption, but introduces new management challenges(Tarody, 2016). In addition to this, the contextual approach depends on organisational systems, customs and processes as the primary antecedents (Koryak et al., 2018). Despite discrepancies amongst the constituents of ambidexterity literature, there is consensus that ambidextrous companies have greater performance. Extensive empirical investigations concluded that a positive link exist between ambidexterity and performance (Chakma et al., 2021a; Koryak et al., 2018; Popadiuk et al., 2018; Zimmermann et al., 2015)..

To date, literature on organisational ambidexterity primarily focus on how businesses balance their incongruous demands with specific attention given to the drivers of organisational ambidexterity and how human resource systems, senior leadership team attributes, contextual elements and organisational structures contributes to the attempt at ambidexterity (Jansen et al., 2020). The resulting tensions between exploitation and exploration is resolved by structurally separating the activities across the organisation and complementing it further with alliances, joint ventures and acquisitions (Jansen et al., 2020).

Structural ambidexterity introduces a dual structure or two separate organisational units that allows certain business units to focus on exploitation whilst the rest of the business units focus on exploration (Chakma et al., 2021b). In contrast, organisations might alternate between exploitation and exploration by implementing processes that support the teams in the organisation to engage with the exploration-exploitation paradox on an individual level (Jansen et al., 2020). Contextual ambidexterity allows business units to implement systems and processes that assist them in making judgement calls between

conflicting exploitative and exploratory demands (Chakma et al., 2021b; Wan et al., 2017; Zimmermann et al., 2015). Initially, scholars argued that ambidexterity could only be effectively achieved through structural or temporal (time-based) separation whereas others argued that concurrent execution of explorative activities and exploitative activities results in above average performance (Birkinshaw et al., 2016; Jansen et al., 2020; Zimmermann et al., 2015).

Contextual separation of activities lends to rely heavily on the individual's ability to apply judgements on how to split their time between exploitative and exploratory initiatives which causes tension (Jansen et al., 2020). Based on the two distinct approaches (structural and contextual) as described in literature, this study will explore factors influencing the selection of a specific construct of ambidexterity during the execution of an adaptive strategy like digital transformation.

### **2.3.2 ANTECEDENTS OF ORGANISATIONAL AMBIDEXTERITY COMPONENTS**

Exploitation and exploration requires distinctive capabilities, structures processes and strategies and therefore has a paradoxical relationship (Koryak et al., 2018). Koryak et al., (2018) argues that even though these two mutually reinforcing components of ambidexterity complement each other during the execution of a strategy, they cause constant organisational tensions which are difficult to resolve. He recommends that the incumbent tensions be resolved using integrative or differentiating approaches. The integrative and differentiating approach differs in it that that the integrative approach relies on the interdependencies and coordination of the paradoxical activities of exploitation and exploration whereas differentiating approaches relies on a distinct choice of either exploitative activities or explorative activities (Koryak et al., 2018).

In an attempt to understand which antecedents of exploitative activities and explorative activities, results in either integrative or differentiating approaches, Koryak et al., (2018) draws on the 'ambidexterity-as-a-paradox' research. Even though the general accepted antecedents of ambidexterity has been identified, the antecedents of the two paradoxical components, exploration and exploitation, has incongruous factors (Koryak et al., 2018). Explorative activities is bound to an autonomous, organic and agile structure whereas exploitation is native to routine, rigidity and arbitrary structures (Koryak et al., 2018).

Koryak et al.(2018) identifies the antecedents of explorative activities and exploitative activities:

- Top management team (TMT) heterogeneity and size,
- a clear written vision,
- innovation and R&D capabilities and
- continuous improvement capabilities.

He further links the antecedents of the ambidextrous components to the integrative and differentiating approaches, stating that ordinary capabilities like continuous improvement are deemed to be integrative, whilst a written vision, top management team (TMT) heterogeneity and innovation and research and development are differentiating (Koryak et al., 2018).

The antecedent of explorative activities and exploitative activities are closely aligned to the theories of the cognitive approaches and the attention based view that found that the establishment of capabilities to effectuate exploitation and exploration is based on the areas of focus of the top management team (Koryak et al., 2018). As a result, strategy implementation therefore requires a full organisational effort, active participation from all managerial levels ( top, middle and lower levels), involvement from all stakeholders and alignment of priorities and activities across the organisation (Weiser et al., 2020a). The antecedents of exploitation and exploration as defined by Koryak et al., (2018), contributes to the comprehension of the factors that could affect the selection of specific constructs of ambidexterity even though there is no direct link between the contributing factors of the construct of ambidexterity and the antecedents of the components of organisational ambidexterity in literature to date (Koryak et al., 2018; Tarody, 2016; Venugopal et al., 2019).

### **2.3.3 ORGANISATIONAL AMBIDEXTERITY IN PRACTICE**

The exclusive pursuit of explorative and exploitative activities is not what results in organisational ambidexterity, but rather the mobilisation and integration of actions and behaviours to enhance and build diverse and innovative products and services (Jansen et al., 2020). This confirms that organisational ambidexterity requires combined effort and cooperation across organisational levels that assists in identifying relationships between dissociated organisational ideas and know-how in an attempt to create new capabilities (Jansen et al., 2020; Kassotaki et al., 2019). D. Teece et al.(2016) argues that the organisations ability to continuously reshape, integrate and construct both

internal and external resources; its capacity to delight its customers and deter its competitors through innovation, agility and resourcefulness is the enactment of this dynamic capability in the digital age. Within this realm of contemporary academic discourse, three different theoretical viewpoints strive to explain how organisations are able to attain a competitive advantage: organisational ambidexterity, dynamic capabilities, and innovation (van Lieshout et al., 2021). As such, organisational ambidexterity, a dynamic capability, is an important facilitator of new resource configurations, exploration and exploitation during the execution of digital strategies (Chaniyas et al., 2019; Koryak et al., 2018; Popadiuk et al., 2018).

### **2.3.4 DYNAMIC CAPABILITIES**

Due to its interdisciplinary nature, organisational ambidexterity and dynamic capabilities theories can be connected to sustainability from various perspectives (D. J. Teece et al., 2017; Wan et al., 2017). The capabilities to manage the organisation's resources are essential if it is to attain high performance in an ever-evolving environment (Weritz & Braojos, 2020). These abilities include organisational resources, competencies and both internal and external skills (Weritz & Braojos, 2020). In addition to this, capabilities are a collection of exploratory processes that aim to collect and use information, create new possibilities and resources, and apply what was learned (Weritz & Braojos, 2020). D. J. Teece et al. (2017) and ;Wan et al., (2017) argues that identifying current and future needs of stakeholders, continuous improvement of existing processes, enhanced or new products and services and continuous employee learning and development initiatives are organisational perspectives contributing to a sustainable competitive advantage.

Initial research on the topic of organisational ambidexterity was fixated on organisational learning, but later branched out to innovation and strategic management (Wan et al., 2017). In addition, as it is with dynamic capabilities, the core purpose of studies in the field of organisational ambidexterity and strategic implementations, is sustainability as constant environmental change drives the building of dynamic capabilities and ambidexterity (D. J. Teece, 2018; Wan et al., 2017; Weiser et al., 2020a). van Lieshout et al.( 2021) believes that organisational ambidexterity can also be understood as an organisation's capacity to manage incongruous tensions that emerge during the resource allocation of process between explorative and exploitative activities. These tensions can be either good or bad, depending on organisational priorities (van Lieshout et al., 2021). The majority of literature concentrate its attention on resolving competing tensions that



happens as a consequence of explorative and exploitative activities. It is for this reason that organisational ambidexterity is seen as a prominent dynamic capability (Popadiuk et al., 2018; van Lieshout et al., 2021).

Literature in organizational ambidexterity and dynamic capabilities studies has made a contribution to strategic management theory based on the mechanisms used by companies to achieve a sustainable competitive edge (Popadiuk et al., 2018). Discourse in dynamic capabilities studies originated from the frameworks of the resource-Based View (RBV) theory which contributed to various schools of thought pertaining to human resources, organisational learning, product and process design, innovation management and intellectual property. It is therefore logical to assume that dynamic capabilities are organisational processes that are created and integrated into an organisation, ultimately transforming its resource base. These organisational processes are closely linked to the three organisational capacities that effectuate dynamic capabilities. Sensing, seizing and transforming, the three dynamic capabilities, have to be closely aligned to the organisational strategy for an organisation to harness a competitive edge. (Karadag, 2019; Popadiuk et al., 2018; D. Teece et al., 2016; D. J. Teece, 2019).

Sensing primarily focuses on how to deal with uncertainties and how to seize opportunities internal and external to the organisation (Teece D, 1997). As a result, businesses need to keep track of technological developments and shifts in consumer preferences. Seizing, is when organisations determine what resources will be needed to respond to the changes and opportunities that have been uncovered through sensing(Teece D, 1997). The objective is to single out the most crucial skills that are currently being overlooked so that they can be addressed. Aligning these resources with the strategy is the last step in the transformation process(Teece D, 1997). Therefore, in order to fill the knowledge gap that exists during strategy implementation, organisations create and mould new capabilities.

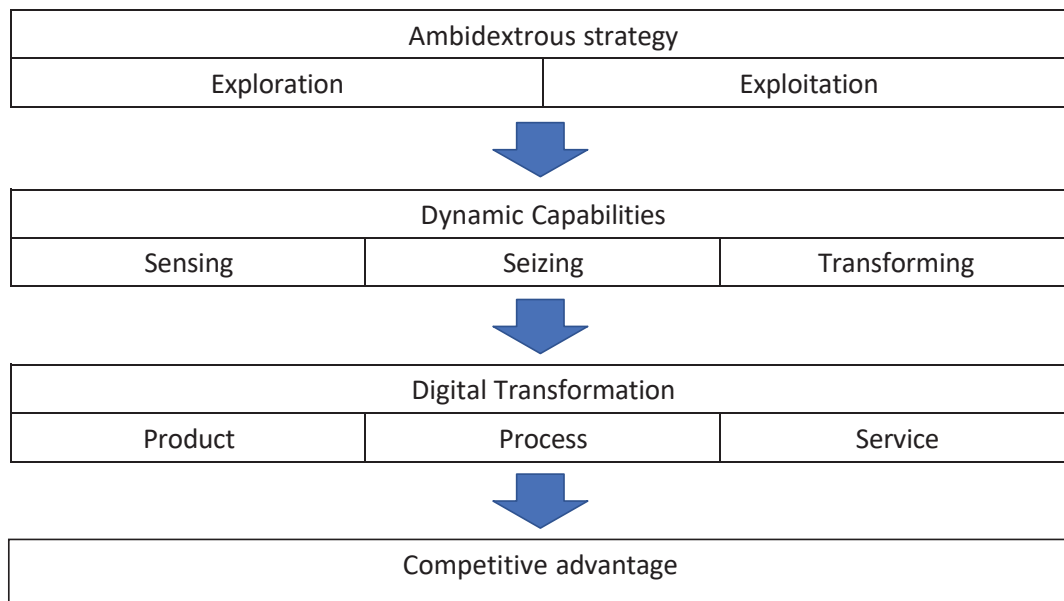
When dynamic capabilities are strong within an organisation, an entrepreneurial approach is permeated throughout the organisation and the resources needed for the new strategy is selected in concert with the operating environment and culture of the organizational (D. Teece et al., 2016; D. J. Teece et al., 2017). This entrepreneurial approach is evident through the organisations ability to form and test hypothesis about new technologies, products and services, commitments toward research and development, creation of alternate business models and reconstruction of resources internal and external to the organisation (D. J. Teece et al., 2017). D. J. Teece (2018)

argues that the unique combination of ordinary and dynamic capabilities ultimately results in a stream of profits for the organisation. Dynamic capabilities therefore not only support the selection of the correct strategic choices and business models, it also supports the successful execution of the selected strategies (D. J. Teece et al., 2017). As such, the ability of an organisation to discern changes in a highly dynamic context, seize the opportunities that arise and ultimately transform its competencies into a sustainable competitive advantage helps it win in the markets it operates in and helps reach its strategic objectives ( D. J. Teece, 2019).

Optimising an organisation's exploration and exploitation strategy is essential to gaining a competitive advantage in today's fast-paced economy due to its inherent complexity(van Lieshout et al., 2021). According to van Lieshout et al. (2021), notwithstanding that ambidexterity, dynamic capabilities, and digital innovation are frequently discussed in isolation, they are in effect interrelated. There is a connection between innovative practises and the research fields that they pertain to, for dynamic capabilities, explorative and exploitative activities (van Lieshout et al., 2021). The theoretical perspectives on organisational ambidexterity, dynamic capabilities, and digital innovation are integrated and linked in Figure 1 below.

**Figure 1**

*Interrelatedness of ambidexterity, dynamic capabilities and DT*



*Note:* This theoretical model was produced by van Lieshout in 2021 which summarises the interdependencies between organisational ambidexterity, dynamic capabilities, and digital innovation. From "The interrelatedness of organizational ambidexterity, dynamic capabilities and open innovation: a conceptual model towards a competitive advantage" by Van Lieshout J, Van Der Velden J, Peters P, *European Journal of Management* (2021) 26(23) 39-62.

By using ambidextrous strategies, organisations work toward achieving the best possible equilibrium between explorative and exploitative activities (Chakma et al., 2021a; Koryak et al., 2018; Popadiuk et al., 2018; van Lieshout et al., 2021). Dynamic capabilities seems to be the processes executed within an organisation that serve as a link between ambidexterity and digital innovation (van Lieshout et al., 2021). DT is native to innovative practices in the digitalisation age (Chanias et al., 2019). As such, dynamic capabilities transforms ambidextrous DT strategies into a reality (van Lieshout et al., 2021).

The practices introduced by dynamic capabilities result in organisational sub-processes that enables sensing, seizing and transforming (van Lieshout et al., 2021). In this context, sensing is associated with exploration where the organisation is constantly scanning the environment in search of new opportunities, seizing is associated with exploitation where the organisation attempts to implement its strategies and activities in a quest to allocate resources through its business model and transformation is associated with the balancing of explorative and exploitative activities through the reconfiguration of sensing and seizing competencies (van Lieshout et al., 2021).

There are multiple ambidextrous orientations and timings that can be linked to each of the three dynamic capabilities. van Lieshout et al.(2021) argues that organizational ambidexterity is a prerequisite for dynamic capabilities, and that the organization should choose its construct of ambidexterity first, and then enhance its dynamic capabilities that are compatible with it. A further argument is that organisational ambidexterity is the result or consequence of a variety of dynamic capabilities and therefore organisations establish their capabilities through externalization which can lead to organisational ambidexterity (Batra et al., 2022; van Lieshout et al., 2021).

It is believed that It is highly likely that an organisation will carefully select a particular ambidextrous strategy on which it will build, in order to further strengthen its sensing, seizing, and transformation capabilities (van Lieshout et al., 2021; Van et al., 2021). However, due to the dynamic nature of business, organisations will need to continuously

examine and modify their sensing, seizing, and transforming capabilities in an attempt to secure a sustained competitive edge in their operating context (Balboni et al., 2019; van Lieshout et al., 2021; Van et al., 2021). As a consequence, the organisation's ambidextrous strategy will consequently become dependent on an holistic approach (top-down and bottom-up) (Batra et al., 2022). This study will determine constructs of ambidexterity selected during the execution of a DTS and the factors that influenced the selection of the construct.

### **2.3.5 CONSTRUCTS OF ORGANISATIONAL AMBIDEXTERITY**

Tarody (2016) found that ambidextrous organisations establish a balance between alignment and adaptation through the development of dual structures or an ambidextrous organisational framework in order to satisfy the opposing demands for exploration and exploitation. To date, organisational ambidexterity has not been conceptually linked to adaptive strategy implementation and this study wish to determine whether a link exist.

In numerous domains of organisational theory, organisational ambidexterity can be described in numerous ways. The debate then arises as to whether ambidexterity is real or merely a revision of earlier findings. The response is that the fundamental difficulty of balancing exploitative and explorative activities is not novel, only the approach. Some researchers typically characterise exploitation and exploration as two endpoints of a spectrum where both actions are irreconcilable. Ambidexterity implies that trade-offs can never be completely avoided, and hence managers have a variety of structural, contextual, and leadership options for resolving conflicts to the greatest extent possible. Therefore, ambidexterity is interpreted as a universal conceptual framework for framing the exploration-exploitation dilemma (Birkinshaw et al., 2016; Chakma et al., 2021a; Koryak et al., 2018; Tarba et al., 2020; Venugopal et al., 2019; Zimmermann et al., 2015).

Multiple recent developments in the study of ambidexterity have been synthesized and summarized within the following four tensions: "differentiation vs. integration; individual vs. organization; static vs. dynamic; and internal vs. external." (Tarody, 2016, p43). Differentiation proponents argue that by creating distinct organizational units for explorative activities and exploitative activities, ambidexterity can be attained (Tarody, 2016). Supporters of the contextual approach, believes that integration assist with the creation of an organisational context that enables employees to execute both exploration and exploitation activities at the same time and within the same business (Tarody, 2016).

This differentiates the most important aspects of organisational ambidexterity - structural and contextual. To provide a holistic view of the various tensions of ambidexterity in relation to adaptive strategy implementation, this study will also explore the tensions that have not received the same amount of attention in literature. These tensions of ambidexterity are; individual vs organisation tension, which refers to the manifestation of ambidexterity on an individual and organisational level, the static vs dynamic tension, which refers to when organisations alternate between exploration and exploitation or alternatively incorporating both components all at once and lastly the internal vs external tension, which refers to organisations who balance exploration and exploitation internally instead of making use of outsourcing to achieve the balance between the two (Tarody, 2016).

In addition to the main tensions of ambidexterity, four constructs of ambidexterity have been defined in historic literature; contextual, structural, cyclical and reciprocal (Batra et al., 2022). The concept of sequential ambidexterity is consistent with the punctuated equilibrium foundation of cyclical ambidexterity (Batra et al., 2022; Chakma et al., 2021a). According to this theory, an organisation's performance improves when it shifts from exploitative activities during periods of stability external to the organisation and to explorative activities during times of volatility (Batra et al., 2022; Chakma et al., 2021a). The alternation between explorative activities and exploitative activities gives rise to sequential ambidexterity. This construct of ambidexterity is known to be less effective for businesses operating in an ever-changing environment (Batra et al., 2022; Chakma et al., 2021a). To be ambidextrous in orientation, an organisation must concurrently participate in explorative and exploitative activities (Batra et al., 2022; Chakma et al., 2021a; Tarba et al., 2020). The two main constructs of ambidexterity is expanded on in the following section.

#### *2.3.5.1 CONTEXTUAL AMBIDEXTERITY*

To be "contextually ambidextrous", organisations must have the behavioural capability to attain both flexibility and conformity at a team level at the same time. Conformity, translates into congruence amongst all the activities in the team (exploitation), and flexibility is the competence to transform activities quickly to respond to the evolving demands in the organizational context (exploration) (Amankwah-Amoah & Adomako, 2021; Balboni et al., 2019; Tarody, 2016). Structural ambidexterity is achieved through dual structures, whereas contextual ambidexterity is achieved through mechanisms that

support and inspire staff members to decide on the allocation of their attention between competing activities to achieve conformity and flexibility (Amankwah-Amoah & Adomako, 2021; Balboni et al., 2019; Tarody, 2016). Even though the foundation of contextual ambidexterity is the processes and systems of the incumbent business unit, every staff member can be customer centric in their area of responsibility whilst also keeping an eye out for changes in the environment, effectively demonstrating contextual ambidexterity (Amankwah-Amoah & Adomako, 2021). Jansen et al. (2020) argues that individual ambidexterity is an antecedent of organisational ambidexterity and understanding the drivers of individual ambidexterity is as critical as understanding the drivers of organisational ambidexterity. It may seem that contextual ambidexterity is executed on an individual level, but it is the organisational context that enables individuals to be ambidextrous (Amankwah-Amoah & Adomako, 2021; Tarody, 2016). Contextual ambidexterity is therefore a higher-order capability as it refers to the employees quest for alignment and adaptability (Popadiuk et al., 2018).

#### *2.3.5.2 STRUCTURAL AMBIDEXTERITY*

Studies in structural ambidexterity, is by far the most extensive and rigorous area of study in the domain of ambidexterity. Early scholars claimed that businesses required a dual structure to facilitate both creative operations and the discovery of new opportunities. This structural separation has its origins in the body of knowledge based on organisational architecture, which stresses the significance of preserving coherence between organisational structural components and organisational context. This marks a consistency seen in prior research in the realm of strategy implementation. The structural distinction can aid ambidextrous firms in preserving their distinct competencies. This can result in greater short- and long-term performance for organisations facing several strategic difficulties. Structural ambidexterity is therefore not a rudimentary organizational architectural solution for explorative and exploitative trade-offs. To implement it successfully, the organizational ordinary and dynamic capabilities must be created, sustained and internally integrated with a congruous strategic intent. Although each unit is autonomous, they are interdependent, and establishing the necessary coordinating mechanism is a matter of leadership, not structure. (Chakma et al., 2021a; Tarba et al., 2020; Ubada-Garc a et al., 2020; Zimmermann et al., 2015).

### **2.3.6 TOP MANAGEMENT TEAMS (TMT) AND AMBIDEXTERITY**

Top management teams perform important roles in the resolution of the ambidexterity paradox during the implementation of adaptive strategies (Van et al., 2021). The interaction between employees, operational managers and senior executives is a foundational element in the achievement of dynamic capabilities, adaptive strategies and organisational ambidexterity (Jansen et al., 2020; Schoemaker et al., 2018; D. J. Teece, 2018; Weiser et al., 2020a). Operational managers embed behaviours that supports exploitation and exploration in innovation and strategic processes, whereas senior executives influences across hierarchical levels ensuring homogeneity in how ambidexterity is achieved across the organisation (Jansen et al., 2020). Social interaction is another micro foundational element contributing to organisational ambidexterity, in that top management team's (TMT) ability to effect behavioural integration in the support of dealing with incongruous demands (Jansen et al., 2020).

Top management is increasingly formulating and implementing DT strategies to overcome the challenges of DT and to address the influence of information technology (IT) on the immediate and external context of organisations (Chanias, 2017a). Strategic activities are first initiated by top management in response to an event triggered by conditions in the operating environment of the organisation( Van et al., 2021). Traditionally, strategy implementation begins when TMT conceptualise an organization's strategic plan and execution roadmap, but recent research found that interactions with various stakeholders internal and external to the organisation, actually informs the decisions made by them (Chanias et al., 2019; Van et al., 2021). The complexity of balancing explorative and exploitative activities pose a cognitive challenge for TMT (Van et al., 2021). The role of the TMT in the execution of an adaptive strategic plan like DT is therefore important to understand and has an important role in the integrated framework for adaptive strategy implementation.

## **2.4 DIGITAL TRANSFORMATION (DT)**

Digitalisation, the leveraging of digital technologies that places new demands on organisations and their people, is without a doubt an impactful socio-technical revolution affecting all types of enterprises (Ritala et al., 2021). As a result, organisations are progressively incorporating digital features into their strategy and planning(Ritala et al., 2021). This typically involves adjustments of essential operational processes and

impacts products, processes, management approaches and organisational structures (Matt et al., 2015). DT therefore has cross-organisational and cross-functional implications and create organisational ambidexterity by default (Vial, 2019b).

Over the last few decades, industries have encountered a variety of obstacles and opportunities which includes, rapid change in technology, a constant increase in complexity, ever-changing customer preferences, legal and regulatory constraints, increased flexibility, reactivity and individualization (Rachinger et al., 2019) . This has resulted in complexities in the organisational context; although numerous new digital technologies are identified, individuals within organisations are unsure how to utilise and integrate them concurrently into existing organisational processes (Rachinger et al., 2019) .

#### **2.4.1 DIGITAL TRANSFORMATION DEFINED**

No common accepted understanding of the concept "Digital Transformation" exists to date (Teichert, 2019). Sebastian Ina et al.( 2017) defines it as "A business strategy, inspired by the capabilities of powerful, readily accessible technologies, intent on delivering unique, integrated business capabilities in ways that are responsive to constantly changing market conditions" (p 198). Chanas (2017) argues that DTS is about the coordination, prioritization, governance and execution of the activities required to achieve the organisation's DT objectives. It introduces technology such as big data, mobile, the internet of thing (IoT) devices to achieve business improvement and to provide greater customer value (Chanas, 2017a). Chanas et al. (2019) argues that DT encompasses the digitization of resources, it also impacts and transform critical operations, products/services and embedded processes to give way to completely new business models.

A research review done by Vial ( 2019) to build a framework on what DT is, defines it ".. as a process where digital technologies create disruptions triggering strategic responses from organisations that seek to alter their value creation paths while managing the structural changes and organisational barriers that affect the positive and negative outcomes of this process" (p118). Titko, (2019) contends that the organisational culture must be changed or enhanced to accommodate DT and at the same time enable the organisation to achieve its overall strategy. DT strategies are therefore inherently multi-functional in that it requires the continuous reconstruction of both information technology



and business resources across multiple processes in the organisation (Yeow et al., 2018).

Due to the constantly changing nature of business and influencing factors of technology advancements on models of business, organisations who are able to implement their strategies effectively in the digital age has a clear competitive advantage (Tawse et al., 2019). The adaptive approach to strategy implementation provides a framework that supports the challenge that exists when implementing a DTS (Chanias, 2017a). Although the framework provides a foundation that incorporates both the traditional view and the adaptive approach to strategy execution, Weiser et al.(2020a) points out the coordination problem that exists when trying to balance exploitative and exploratory activities during the implementation of adaptive strategies. Given the breadth and depth of the consequences of digitalization, methods for implementing it, aim to synchronise and prioritise its various components (Matt et al., 2015). As such, DT is an ideal frame of reference for studying strategic change in the digital era (Warner & Wager, 2019).

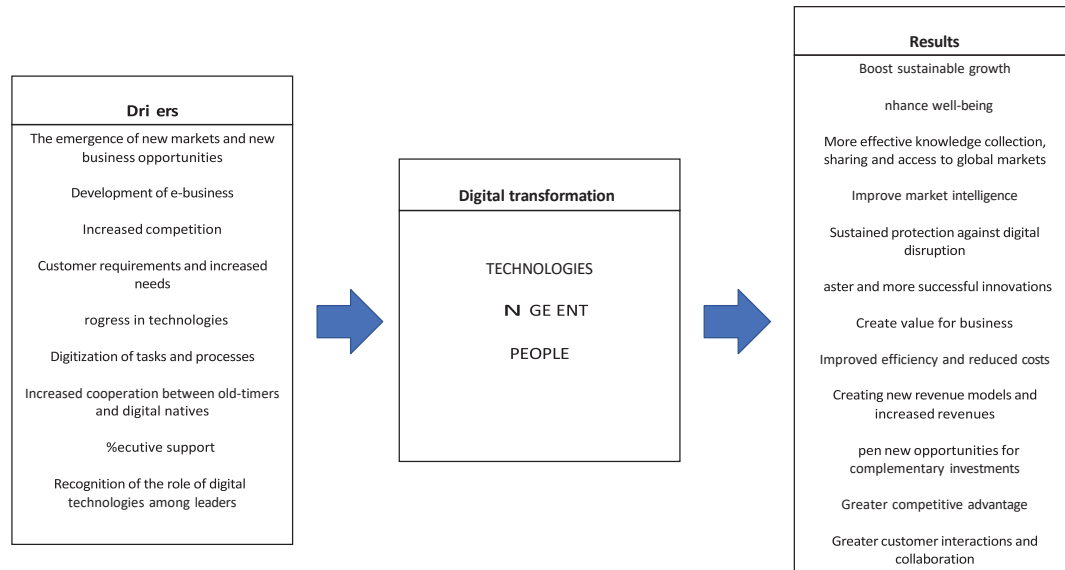
#### **2.4.2 CONCEPTUAL FOUNDATION**

While processes and technologies are the backbone of digital transformation, it's imperative to understand that it is about much more than just implementing IT solutions (Titko, 2019). Considerations to organisational change, culture change and customer-centricity are important when DT strategies are implemented (Titko, 2019). In this context, the people component acquires paramount significance (Titko, 2019). The following conceptual model provides insights into the factors that enables DT processes together with possible outcomes that can be expected by business and society.

The conceptual model in Figure 2 below enables an improved understanding of key components and ancillary factors of digital transformation. As a result, an alternate understandings DT are achieved. Schwertner ( 2017) argues that DT is "the application of technology to build new business models, processes, software and systems that result in more profitable revenue, greater competitive advantage and higher efficiency" (p388), (Davies et al., 2017) states that "DT is the investment in people and technology to drive a business that is prepared to grow, adapt, scale and change into the foreseeable future" (p7).

**Figure 2**

*A conceptual model of DT*



*Note:* A conceptual model of DT which summarises components and ancillary factors of digital transformation. From "Digital transformation: conceptual framework Related papers" by Titko J(2019) *Contemporary issues in business management and economics engineering* (2019) 719-727

It is clear that digital technologies are significantly impacting how organisations mould their competitive scenarios when attempting to achieve a sustainable competitive advantage in an ever changing market (Lopes et al., 2019; D. Teece et al., 2016). The result of a highly competitive market is minimised product life-cycles and complex ecosystems of customers, partners and stakeholders (Lopes et al., 2019). Lopes et al.(2019) argues that innovation is the conduit that can help organisations achieve shorter product-lifecycles and a sustainable competitive advantage. When organisations leverage their existing competencies to maintain and optimize their products and services and achieve operational efficiencies in doing so, they are exploiting their ordinary capabilities. In contrast, when these organisations are creating new competencies to build innovative products and service solutions through innovative processes, they are using their dynamic capabilities for exploration. (Birkinshaw et al., 2016; Coreynen et al., 2020; Popadiuk et al., 2018; Tarba et al., 2020; Zimmermann et al., 2015).

### **2.4.3 ANTECEDENTS OF DIGITAL TRANSFORMATION**

It is important to identify the antecedents of DT that could improve an organisations competitive advantage. Weritz & Braojos ( 2020) argues that the tenets of a digital culture, such as lifelong education, a strong code of ethics, the governance of data, and innovative leadership around digitisation, are the antecedents of the successful DT of an organisation.

When an organisation promotes a culture of continuous learning and development, they foster an atmosphere where workers are encouraged to acquire and apply new digital skills while also engaging in open dialogue and sharing of ideas (Kane et al., 2017). Having a work setting that encourages and facilitates employees' growth is crucial (Vial, 2019a). Findings in the research study done by Weritz & Braojos (2020) indicate that a learning and development environment governs the link between dynamic abilities and DT by requiring organisations to afford employees with opportunities to apply their new learnings and competencies in their work environment. Vial (2019a) argues that in an attempt to reach full digital maturity, it is necessary to establish a system of ethics and data governance. Organisational goals and actions must align with the ethics, safety, and privacy standards of all affected parties.

### **2.4.4 DYNAMIC CAPABILITIES**

"Absorptive capacity, agility and flexibility, cross-functional collaboration, innovation capacity, market orientation, and relational capability" are pertinent dynamic capabilities that have been proven to promote DT (Weritz & Braojos, 2020, p7).

Absorptive capacity, the capacity to efficiently identify and seize new external and internal information, affects the DT in the early identification of new market possibilities and threats as it is used as a competitive advantage and to increase organisational performance (Leonhardt et al., 2017; Vial, 2019a). This is supported by the second dynamic capability attributable to successful digital transformation, agility and flexibility according to Leonhardt et al. (2017); Matt et al. (2015) and Vial (2019a), encapsulates the swift reaction time to changing consumer demands and market conditions; proactive awareness of emerging business prospects and industry trends and the openness and capacity to incorporate change into existing operational models and procedures. As a result, organisations are more equipped to spot and capitalise on emerging DT

possibilities(Weritz & Braojos, 2020). DT and business success therefore rely heavily on agility as a key competitive advantage (Kane et al., 2017).

Cross-functional collaboration, another dynamic capability, is a capability an organisations must have to implement their DTS successfully (Weritz & Braojos, 2020). Cross-functional teams work together to accomplish company-wide goals such as better communication across departments, sharing of best practises, and the generation of innovative approaches to old problems(Kane et al., 2017). Closely coupled with cross-functional collaboration is the organisation's innovation capacity. The ability to modify existing management practices in order to experiment test and incorporate the lessons learned prepares organisations to try out cutting-edge technologies, take calculated risks, and successfully navigate the unpredictable landscape of the digitalisation era (Kane et al., 2017; Vial, 2019a). Lastly, market orientation and relational capability, is to to survey the operating context for new prospects and client demands and to be able to form associations and resources amongst internal and external stakeholders(Kane et al., 2017; Tallon et al., 2019). This furnish the organisation with the capacity improve its performance in the DT process by responding to changing customer journeys and consumer preferences(Kane et al., 2017). In addition to this, to remain competitive, it is necessary to exchange resources with partners and create strong relationships, as not every organisation possesses all necessary talents and competencies (Duerr German et al., 2018).

Ordinary capabilities can be standardised through best practices on an industry level whereas dynamic capabilities relies on management cognition as well as the organisational routines which are influenced by the organisational customs and traditions or culture (D. J. Teece et al., 2017). DJ. Teece ( 2018) argues that executive management should therefore focus on dynamic capabilities as they are closely linked to innovation and a sustainable competitive advantage, notwithstanding that dynamic capabilities are strengthened by routine and predictable processes (ordinary capabilities) in the organisation. Laaksonen & Peltoniemi, (2018) further argues that in order to embed dynamic capabilities in the organisation, resources and ordinary capabilities that are affected must be determined, even though these capabilities could be difficult to differentiate as they might have both ordinary and dynamic motivations. The conundrum that exists is that organisations cannot choose one instead of the other, they need to focus on both their ordinary (exploitative) and dynamic (exploratory) capabilities to achieve a sustained competitive edge in the digital age. (Birkinshaw et al., 2016; Chakma et al., 2021b; Tarba et al., 2020).

### 2.4.1 PRE-DIGITAL ORGANISATIONS

Organisations in conventional sectors, such as banking, manufacturing, and retail, that thrived prior to the advent of digitalisation are called 'pre-digital' organisations (Chaniyas et al., 2019). These organisations see the possibilities of merging their core capabilities with new ones made possible by digitization, but their DT is still in its infancy and the majority of their revenue streams still derive from conventional business models (Sebastian Ina et al., 2017).

In the pre-digital era, organisations took on a variety of shapes and sizes, each with its own set of challenges that necessitated its own unique approach to solving those challenges (Hughes, 2018). According to Hughes (2018), organizations in predictable environments developed arbitrary structures with clearly defined organisational levels, job roles, areas of responsibility, and job descriptions; organizations in unpredictable environments developed fluid structures with greater cross-functional autonomy and decentralised teams. Despite the fact that researchers once believed environmental turbulence to be the main determinant factor for the most relevant structure of organisation, newer studies have shown that in an ever-changing context, new and mature organisations experience intrinsically diverse structural challenges as a result of their unique environments (Hughes, 2018).

According to Berghaus & Back (2016), it is critical for the top management teams of pre-digital organisations to have thorough knowledge and understanding of their current business model, a distinct picture of their desired future state, and a plan to get there. It is therefore critical that pre-digital organizations adopt technologies to leverage their competencies to improve organisational routines, attract talent, and introduce innovative models of business, if they are to survive and thrive in the digitalisation age. (Schwertner, 2017). Organisational change in favour of digital transformation occurs when the organisation is able to convert from its current reality to an intended future reality (Schwertner, 2017).

Pre-digital organisations that have not yet fully embraced the digital age often strike a balance between experimental and exploitative actions when executing DT strategies in highly volatile contexts (Tumbas et al., 2017). Even though the advent of digitization has presented organisations with an extensive variety of opportunities to engage their

customers, which has resulted in the building of novel and unforeseen innovative models of business, some of these organisations still struggle to implement their adaptive strategies (Lawson & Samson, 2001; Rachinger et al., 2019; Schoemaker et al., 2018). The fact that incumbents are confronted with a variety of tensions between established and innovative modes of working is a recurrent theme that runs across the business model innovation literature (Rachinger et al., 2019). This means that the TMT in pre-digital organisations are faced with the strategic conundrum of balancing the incongruous demands posed in the management of conflicting ever-changing business models (Warner & Wager, 2019). In other words, this is a strategic paradox that requires leaders to find new methods of balancing their strategic demands (Warner & Wager, 2019).

A significant challenges that pre-digital organisations experience when attempting to transform their business models, is the frequent unwillingness of managers to experiment with new ways of work (Van et al., 2021; Warner & Wager, 2019). The source of the tension lies in the fact that managers of pre-digital organisations are likely to favour established ways of work that achieved great performance historically (Van et al., 2021). Additionally, managers are likely to use policies, processes, and measures to protect the current state of affairs and avoid experimentations that have the potential to negatively affect the profitability of the current business (Van et al., 2021; Warner & Wager, 2019). Overall, this demonstrates that pre-digital businesses are presented with the challenge of harmonising their current outcomes with new insights, which is a substantial obstacle for the adaption of its business enabled by digitalization (Warner & Wager, 2019). Consequently, digitization can serve as a source of innovation for established organisations who are in the process of reinventing their models of business (Geissdoerfer et al., 2018; D. J. Teece, 2018; Warner & Wager, 2019).

#### **2.4.2 ORGANISATIONAL CULTURE**

There has been a lot of research done on the topic of how culture affects the adoption of IT (Weritz & Braojos, 2020). In spite of this, research into the significance of digital culture in reaching a state of digital maturity is still in its infancy (Weritz & Braojos, 2020). Schwertner (2017) argues that organisations need to have a vision for its growth that is supported by the limitless opportunities presented by digital technologies. The integration of these technologies into all business functions, results in a new operating environment. Schwertner (2017) believes it is imperative that leaders in pre-digital organisations manage organisational change so that staff aversion and cost to the

organisation are reduced to a minimum while the efficacy of the organisational change initiative effort is increased.

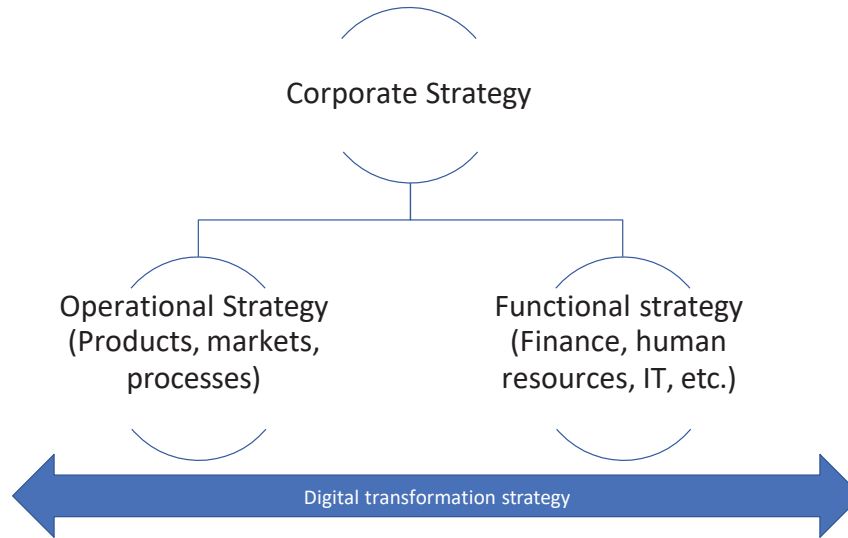
Weritz & Braojos, (2020) identifies twelve cultural values which are grouped in three main groups of cultural orientations that are critical for DT which includes externally oriented culture, internally oriented culture and flexibility and adaptability (Duerr German et al., 2018; Weritz & Braojos, 2020)..The culture of an organisation may be a critical and deciding aspect in the success or failure in the implementation of its DTS (Duerr German et al., 2018; Weritz & Braojos, 2020). During the DT process, the organisation must reconsider their culture in light of new realities that are more appropriate for the digital age (Weritz & Braojos, 2020).. They need to adopt a digital mindset and new ways-of-work in order to effectively engage with digital leaders, new I platforms of learning, and emerging technologies (Weritz & Braojos, 2020)..

### **2.4.3 DIGITAL STRATEGIES VS IT STRATEGIES**

According to Schwertner (2017), the successful implementation of a DT requires the modernisation and improvement of business processes in the manner best suited for the organisational strategic vision (Schwertner, 2017). He states that it is almost impossible to provide a universally applicable DTS, as it appears that the strategy seems to be unique to each organisation (Schwertner, 2017). In addition to this, many organisations are fixated on technology rather than their customer due to the lack of a clearly defined strategy (Schwertner, 2017). Equal attention must be given to organisational change, technology, and integration for DT to be effective (Schwertner, 2017). Matt et al.(2015). Argues that digital strategies are multifaceted and should be linked to a variety business strategies to take advantage of the fact that they affect the entire organisation(Matt et al., 2015). The connection between DT initiatives and other organisational strategies is illustrated in Figure 3 below.

**Figure 3**

*Relation between DTS and other corporate strategies*



Note: The connection between DT initiatives and other organisational strategies produced by Matt et al 2015. From "Digital Transformation Strategies" Matt C, Hess T, Benlian A *Business and Information Systems Engineering* (2015) 57(5) 339-343.

Information technology (IT) strategies can be characterised in a number of ways, but often involve an organisations present and projected future activities, application systems, infrastructure, and organisational and financial framework in order to provide IT services (Matt et al., 2015). Consequently, IT strategies are frequently centred on the management of an organisation's IT infrastructure, which has a minor effect on the rate at which the organisation grows and innovates (Matt et al., 2015). This makes it difficult for the business to capitalise on product- or customer-focused developments created by digitalisation, which frequently reach outside of the boundaries of the individual enterprise (Matt et al., 2015). However, information technology strategies map the route for an organisation's future use of technology from a systemic perspective, although they may not be fully responsible for the changes to products, services, processes, and organisational structures that precede technological integration (Matt et al., 2015).

When a digital strategy is developed, multiple perspectives and objectives are examined (Matt et al., 2015). These strategies offer a business-first approach and consider how technological improvements may affect the products, operations, and structures of the organisation (Matt et al., 2015). They are intended to be more inclusive, and they include digital activities that occur at the consumer level such as the incorporation of digital



technology into end-user products (Matt et al., 2015). It is vital that IT, functional, digital and all other business strategies complement each other (Matt et al., 2015). This is comparable to prior debates on whether exploration and exploitation should be complimentary (Matt et al., 2015). This issue has been the subject of research with the aim of producing a solution that blends IT and business objectives into an unified "digital transformation" strategy (Matt et al., 2015).

Today, organisations are undergoing continuous DT as a result of external forces that are forcing them to reorganise their sensing, seizing, and transforming capabilities in an attempt to take advantage of emerging opportunities and achieve greater strategic agility ( Warner & Wager, 2019). As such, building sensing, seizing and transforming capabilities for digital, contributes to the successful execution of an organisations DTS (Kump et al., 2019; Warner & Wager, 2019).

It is important for top management teams to prioritise the DT of established enterprises as a means of protecting their competitive advantages in traditional industries (Warner & Wager, 2019). The majority of the leaders of large, established organisations believe that their businesses can maintain their leadership positions by capitalising on both the strengths they already have and the capabilities made possible by digital technologies(Warner & Wager, 2019). However, these leaders do not always fully appreciate the strategic challenges that DT presents.

## **2.5 LINKING ORGANISATIONAL AMBIDEXTERITY TO ADAPTIVE STRATEGY IMPLEMENTATION**

An adaptive strategy execution plan is an exercise of continual organisational advancement, as stated by (Weiser et al., 2020a) in their work on the adaptive turn in strategy implementation. The process involves cross-functional teams across the organisational, concurrently conceptualising, adopting, and changing their own strategies. As a result, organisations can be viewed as a intricate ever-changing system that continuously responds in a dynamic manner to a variety of unforeseen internal and external environmental events, making use of its dynamic capabilities (Weiser et al., 2020a). The attention of strategy execution research moved from the conceptualisation of strategy execution roadmaps to effectuating strategies in practice due to the new adaptive approach to strategy (Weiser et al., 2020a). A conclusion was reached, that the

only way to achieve time-critical higher-level strategies was to do so incrementally due to the fact that effective strategies are resultant of a sequence of strategic formulation components, each of which encapsulates a distinct collection of organisational participants and requirements. As a result, the adaptive turn saw the appearance of an alternate field of study: organisational sensemaking (Jarzabkowski et al., 2019; Weiser et al., 2020a).

Although the 'adaptive turn' has moved the attention away from organisational structure as the primary mechanism for adopting strategies, organisational structure still has a significant role in strategy execution research (Jarzabkowski et al., 2019; Weiser et al., 2020a). In recent years, management's intention to foster creativity and flexibility through decentralisation instead resulted in a decrease in morale and a return to more traditional forms of organisational structure (Jarzabkowski et al., 2019; Weiser et al., 2020a). In response to this, the adaptive turn have now shifted the dominant paradigm away from viewing organisations as hierarchical structures and instead viewing them as pluralistic environments characterised by decentralised authority and the conflicting agendas of various organisational constituents (Jarzabkowski et al., 2019; Splitter et al., 2021; Weiser et al., 2020a). (Jarzabkowski et al., 2022; Splitter et al., 2021) believes that in order to arrive at a common understanding, many stakeholders will have to immerse themselves into a process of interpretation that connects the various pre-existing interpretations with the new interpretations provided by the suggested strategies. Therefore, it is up to the top management teams to mediate between the many team-specific, relational, and interpretive settings that shape the local organisational change narratives (Jarzabkowski et al., 2019).

Strategy implementation at an organisation's centre was shown to be oriented toward exploitation, whereas strategy implementation at the periphery of an organisation favoured exploration. (Weiser et al., 2020a). Splitter et al., (2021) found that the strategy implementation process led to changes in both processes and the organisation's culture, demonstrating the impact of organisational sensemaking on the cyclical relationship between practise, adaptation and cultural change.

How to combine the socially constructed but essential partial viewpoints of employees in various areas and levels of an organisation into a coherent pattern of activity is the main coordination challenge in the adaptive turn (Weiser et al., 2020a). Given that strategy is known to be socially constructed, the purpose of coordination in the strategic implementation process is to establish shared understanding of the strategy and the plan

for implementing it at all levels (Jarzabkowski, 2017; Splitter et al., 2021). While the structural control approach focused on how to achieve mutual organisational understanding in an effort to execute strategies through organisational controls, organisational structures and organisational incentives, the adaptive turn switched focus to the method to best fuse and synchronise multiple organisationally created features in an unified formation of activity (Weiser et al., 2020a). Weiser et al., 2020a) argue that by combining the traditional approach to strategy execution with the adaptive approach to strategy execution, the newly created integrated approach leads to a holistic understanding of how to coordinate strategic activities during strategy execution.

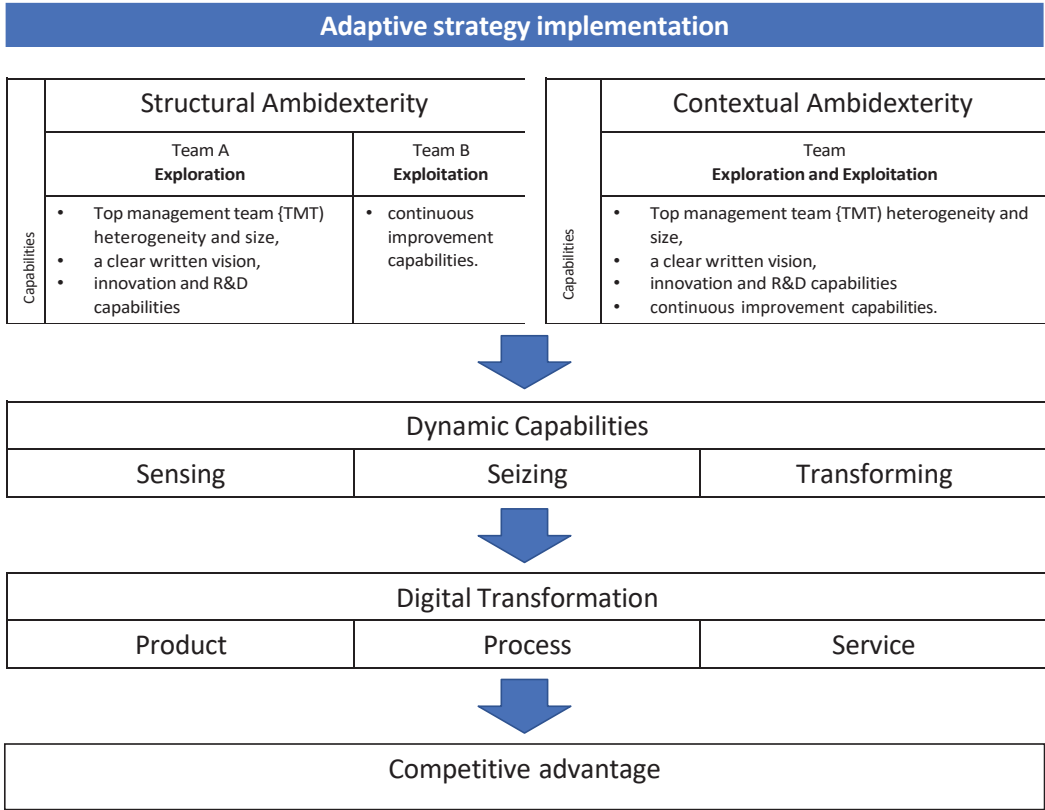
Organisational ambidexterity, the balancing of efficiencies (exploitative activities) and adaptation (explorative activities) within organisations, is an area of study that has not been linked to adaptive strategy implementation and researchers believe that this link could shed light on a solution for the coordination problem that exists during the implementation of an adaptive strategy (Birkinshaw et al., 2016; Weiser et al., 2020a; Zimmermann et al., 2015). Therefore, according to adaptation theory, ambidextrous organisations must satisfy two main prerequisites. The organisation's success hinges on two elements: first, its ability to dependably repeat the conditions that led to that achievement (i.e., its ability to replicate success), and second, its ability to generate diversity by providing opportunities for experimentation with alternate opportunities (Hughes, 2018). The similarities between this and exploitative activities and explorative activities are evident, as exploitative activities includes continuous improvement activities through the re-use and enhancements of existing capabilities and practises in order to produce reliable, standard, and predictable results, whereas explorative activities includes innovation processes that translates to unpredictable (Hughes, 2018). This emphasises the tensions of ambidexterity due to the outcomes of explorative activities which by nature is unexpected, uncertain, and unclear; organisations are proven to prefer exploitation due to the higher certainty of its rewards (Hughes, 2018).

It is believed that the conceptualisation of the integrative approach to strategy execution can be enhanced by adding a conceptual framework for organisational ambidexterity during the implementation of an adaptive strategy. Based on the literature review, organisational ambidexterity and its antecedents moderates the dynamic capabilities that an organisation requires when operating in a volatile and ever-changing context. The successful enactment of the organisations ordinary capabilities and dynamic capabilities secures a competitive advantage (Teece D, 1997; D. J. Teece, 2014).

Below is a conceptual framework (Fig 4) as adopted from the literature review, depicting the components of organisational ambidexterity, the capabilities linked to the components of ambidexterity and the main constructs of ambidexterity (structural and contextual) in the DT context, an adaptive strategy. Further to this, structural ambidexterity is attained through the differentiation of exploratory and exploitative activities and the execution thereof by separate teams (Tarody, 2016). Contextual ambidexterity is achieved by the merging of exploitative activities and explorative activities which is executed by the same team (Tarody, 2016). This research study wish to determine the constructs of ambidexterity selected during the implementation of a DTS as well as the factors that influence the selection of the specific construct which could confirm the link between organisational ambidexterity and adaptive strategy implementation.

**Figure 4**

*Conceptual model of organisational ambidexterity during the implementation of a DTS*



Note: Conceptual model of organisational ambidexterity during the implementation of a DTS as adapted from van Lieshout et al., 2021. From "The interrelatedness of

organizational ambidexterity, dynamic capabilities and open innovation: a conceptual model towards a competitive advantage" by Van Lieshout J, Van Der Velden J, Peters P  
European Journal of Management (2021) 26(23) 39-62.

### 3 RESEARCH QUESTION

The research study seek to explore the organisational ambidexterity constructs selected during the implementation of an adaptive strategy like digital transformation. Further to this, this study seek to comprehend the factors that influence the selection of specific constructs of ambidexterity.

#### **Research Questions 1: What are the organisational ambidexterity constructs selected during the implementation of a DTS?**

Theoretical and empirical research into the processes involved in the implementation of an adaptive strategies, such as a DT are lacking (Vial, 2019b; Weiser et al., 2020a). Despite senior leadership teams being genuinely motivated to encourage DT of business models, structures, and routines, they face significant challenges (Chanas et al., 2019).

Svahn et al. (2017) argue that it is imperative for pre-digital organisations to strike a balance between maximising the value of what they have (exploitation) and establishing new digital capabilities that are backwards compatible with their existing infrastructure and processes (exploration) which translates to organisational ambidexterity. Despite these challenges, narrow research studies has been piloted in the context of DT as a significant component in the study of strategic change (Matt et al., 2015; Vial, 2019a, 2019b; Weiser et al., 2020a). According to organisational ambidexterity research, achieving a balance between efficiency (exploitation) and adaptation (exploration) requires structural, temporal, or contextual differentiation (ambidexterity) (Weiser et al., 2020a). This school of thought has not been linked to strategy implementation, although it has the potential to significantly contribute to an integrative perspective of adaptive strategy implementation (Weiser et al., 2020a). Organisations, according to Koryak et al., (2018), should maintain their current viability through sufficient exploitation and their future viability through exploration. Its ability to effectuate organisational survival, organisational learning, competitive advantage and creativity makes organisational ambidexterity an attractive area of study in helping organisations solve strategy implementation challenges (Koryak et al., 2018).

Due to the pertinent gaps that exists in current literature in relation to how organisations should be structured to enable successful adaptive strategy implementations, this research study wish to explore the construct of ambidexterity that is selected by pre-

digital organisations during the implementation of their DTS (Splitter et al., 2021; Weiser et al., 2020a)

Various ambidexterity approaches have been integrated and contained into four key tensions of ambidexterity: "differentiation vs integration, individual vs organisational, static vs dynamic, and internal vs external" (Tarody, 2016, p43). Differentiation supporters argue that ambidexterity can be exclusively attained by explicitly separating exploration and exploitation activities in independent structural components (Tarody, 2016). Supporters of the contextual method argue that integration helps to create an organisational framework in which employees can do both explorative activities and exploitative activities in the same business unit at the same time (Tarody, 2016). This distinguishes the two most significant characteristics of organisational ambidexterity - structural and contextual (Tarody, 2016).

Through the use of ambidextrous strategies, organisations work toward achieving the best possible equilibrium between exploration and exploitation (Chakma et al., 2021a; Koryak et al., 2018; Popadiuk et al., 2018; van Lieshout et al., 2021). Dynamic capabilities seems to be the processes executed within an organisation that serve as a link between ambidexterity and digital innovation (van Lieshout et al., 2021). As such, dynamic capabilities transforms ambidextrous DT strategies into a reality (van Lieshout et al., 2021) .

The study will explore whether structural, contextual or any other construct of ambidexterity is employed by pre-digital organisations. This will contribute to an understanding of how organisations organize themselves when executing both exploitative and explorative activities during the execution of an a DTS in an attempt to solve the coordination problem that exists during the implementation of adaptive strategies as contended by Weiser et al. (2020a).

Weiser et al. (2020b) identifies several research gaps in the body of knowledge based on the integrated view of strategy implementation which includes the coordination problem that exists when organisations attempt to balance exploitative activities and explorative activities (ambidexterity) during execution of their adaptive strategies. He emphasizes that there is currently no literature that links organisational ambidexterity to adaptive strategy implementation. The existence of a specific construct of ambidexterity within the implementation process of an adaptive strategy like DT will confirm the link between organisational ambidexterity and adaptive strategy implementation.

## **Research Question 2: What are the factors that contributed to the selection of a particular construct of ambidexterity?**

Antecedents of exploitative activities and explorative activities as defined by Koryak et al., (2018), contributes to a comprehension of the factors that could influence the selection of a specific construct of ambidexterity even though there is no direct link between the contributing factors of the construct of ambidexterity and the antecedents of the components of organisational ambidexterity in literature to date (Koryak et al., 2018; Tarody, 2016; Venugopal et al., 2019). In an attempt to understand which antecedents of exploitation and exploration, results in either the integrative or differentiating approach, Koryak et al. (2018) draws on the 'ambidexterity-as-a-paradox' research. Even though the general accepted antecedents of ambidexterity has been identified, the antecedents of the two paradoxical components, exploration and exploitation, has incongruous factors (Koryak et al., 2018). Exploration is bound to an autonomous, organic and agile structure whereas exploitation is native to routine, rigidity and arbitrary structures (Koryak et al., 2018). Even though these antecedents of the components of ambidexterity shines a light on the factors that influence the selection of specific constructs, this has not been done in the context of adaptive strategy implementation.

According to van Lieshout et al. (2021), notwithstanding that ambidexterity, dynamic capabilities, and digital innovation are frequently discussed in isolation, they are in effect interrelated. There is a connection between innovative practises and the research fields that they pertain to, in terms of dynamic capabilities, explorative activities and exploitative activities (van Lieshout et al., 2021). There are multiple ambidextrous orientations and timings that can be linked to each of the three dynamic capabilities. van Lieshout et al.(2021) argues that organisational ambidexterity precedes dynamic capabilities and the organisation therefore selects its ambidextrous construct first, and then create dynamic capabilities that are compatible with the construct of ambidexterity. Secondly, organisational ambidexterity is the result or consequence of diverse dynamic capabilities and for this reason incumbents institute their capabilities through various mechanisms, these mechanisms can lead to the institution of organisational ambidexterity (Batra et al., 2022; van Lieshout et al., 2021).



It is believed that It is highly likely that an organisation will carefully select a particular ambidextrous strategy on which it will build, in order to further strengthen its sensing, seizing, and transformation capabilities (van Lieshout et al., 2021; Van et al., 2021).

In an attempt to build a framework to contribute to the integrative approach to adaptive strategy implementation, this research study will first attempt to understand the constructs of ambidexterity selected during the adaptive strategy implementation process and then comprehending the factors that influenced the selection of the construct of ambidexterity.

## **4 RESEARCH METHODOLOGY**

This chapter provides the context of the research approach taken during this study. The design of the research, data sampling, data gathering, and data analysis was done using a qualitative, exploratory approach. Data was gathered using face-to-face, one-on-one, semi-structured interviews with TMT working in pre-digital organisations who are actively implementing a DTS. The interviews were conducted online. Lastly, the limitations and quality controls are discussed

### **4.1 CHOICE OF RESEARCH METHODOLOGY**

As the study wished to explore the link between organisational ambidexterity and adaptive strategy implementation during the implementation of a DTS, it took an interpretivist approach to the research design.

The research method selected during the study was dependent on the objective or aim of it, as well as the topic that was being explored. Qualitative and quantitative methods of research deal with the exploration of a phenomenon; but have marked differences in the objective of the research, data collection techniques, questions asked, presentation of the data and the adaptability of the research approach (Basias & Pollalis, 2018; McCusker & Gunaydin, 2015).

Quantitative research follows a systematic approach leaning on an objective view of a phenomenon supported by facts based on statistics and/or mathematics. This method of research is also referred to as confirmatory as it concerns itself with theory testing. In contrast, qualitative research analyses a phenomenon by establishing a deep understanding of occurrences and behaviours in a subjective manner; noting the varied constructs and meanings that are being placed on the phenomenon instead of quantifying how often a pattern occur. Qualitative research methods are used when interpretation is required, the area of research is unexplored and there is uncertainty surrounding the phenomenon. This method of research concerns itself with theory building (Basias & Pollalis, 2018; Bell Emma et al., 2018; McCusker & Gunaydin, 2015; Williams, 2007).

To date, organisational Ambidexterity has not been linked to adaptive strategy implementation (Weiser et al., 2020b). In an attempt to find a response to the research

questions and build a theoretical framework, exploratory qualitative research methods were used for the collection of primary data. The method was selected as the primary objective of the research project was to obtain an in-depth comprehension of the constructs of ambidexterity selected during the implementation of a DTS and the factors that influenced the selection thereof. Qualitative methods, which are less structured, can highlight intricate challenges and decision-making that is native to strategy execution (Bell Emma et al., 2018). Furthermore, a qualitative approach is fitting for comprehending the cause and effects of operational processes (Mohajan & Mohajan, 2018).

Due to limitations in the literature that exists on organisational ambidexterity during the implementation of an adaptive strategy like DT, an inductive evaluation approach will be used to make sense of the phenomenon. This approach will allow for sense making without imposing pre-created expectations and ultimately contribute to the development of new theories (Dasgupta, 2015). Inductive research strategies are used to create theories out of data whereas deductive strategies are usually utilised in quantitative research(Thomas, 2003). As such, this research study will follow an inductive cross-sectional qualitative study approach to collect data from different sources at a specific moment (Mohajan & Mohajan, 2018). Cross-sectional design principles was chosen for the study due to the objective and the research question.

Comprehensive semi-structured interviews were held with study participants since this mode of data collection enabled for the researcher to build a rapport with each individual. Furthermore, online in-person meetings were favoured to prevent misunderstandings that could arise. As a result of the semi-structured, comprehensive interviews, the researcher was able to gain a unique level of insight into the phenomenon and modify the interview questions accordingly (Mohajan & Mohajan, 2018). All of the questions used to direct the interview were based on previous research.

## **4.2 POPULATION**

Senior and executive managers from pre-digital organisations who are actively implementing DT strategies were designated as the target population for the study. Interview questions 1 and 2 were used to determine whether or not candidates met the sample criteria. These questions asked the participant to describe their role within the organisations and how they are involved in the implementation of the DTS.

All entities of a certain type that are of interest to a researcher is referred to as a research population (Allen, 2017). The research problem, research questions and the aim of the study guided the selection of the research population (Eisenhardt & Graebner, 2007). The objective of this study was to link the constructs of ambidexterity to the implementation of DT strategies, by firstly identifying the construct of ambidexterity that is employed during the implementation of the strategy and secondly gaining a deep understanding of the factors that contributed to it.

Pre-digital organisations who are implementing DT strategies in highly volatile environments, typically balance their activities between exploratory and exploitative activities (Tumbas et al., 2017). These organisations operate in traditional industries like financial services, automotive and retail, who performed well in the pre-digital age (Chanias et al., 2019). They recognize the possibility of merging their core capabilities with new capabilities made possible by digitization (Sebastian Ina et al., 2017). The DT of these companies are mostly in its infancy as the majority of their revenue streams still come from their traditional business models (Sebastian Ina et al., 2017). In contrast, born-digital organisations has digital technologies embedded in their operating models and core capabilities (Chanias et al., 2019).

Top management teams (senior and executive management) perform a pivotal role in the resolution of the ambidexterity paradox during the implementation of adaptive strategies (Van et al., 2021). The interaction between employees, operational managers and senior executives is a foundational element in the achievement of dynamic capabilities, adaptive strategies and organisational ambidexterity (Jansen et al., 2020; Schoemaker et al., 2018; D. J. Teece, 2018; Weiser et al., 2020a). TMT help embed behaviours that supports exploitation and exploration in innovation and strategic processes, whereas senior executives influences across hierarchical levels ensuring homogeneity in how ambidexterity is achieved across the organisation (Jansen et al., 2020). Due to the critical role of the TMT in the execution of organisational strategies as well as their role in achieving ambidexterity in their organisations, they are a suitable population to include in this research study.

### **4.3 UNIT OF ANALYSIS AND LEVEL OF ANALYSIS**

As most strategy management studies concentrate on formulating strategies, this study seeks to understand how the coordination problem that arises during strategy

implementation, as highlighted by Weiser et al. (2020a) can be better understood through the lens of organisational ambidexterity and its constructs in the context of a DTS. Experienced top-level management (TMT) involved in developing and executing digital initiatives can offer invaluable and perhaps even unparalleled perspective.

The correct unit of analyses impacts the quality of a study as it helps to define the perimeters of the theory that is being built. It is also closely linked to the research question (Bell Emma et al., 2018). In an attempt to provide answers to the research questions, a deep understanding of the underlying factors contributing to the selection of a specific construct of ambidexterity, the unit of analyses are senior and executives managers with intimate knowledge of the digital strategy and the implementation thereof (Bell Emma et al., 2018).

#### **4.4 SAMPLING METHOD AND SIZE**

There is a marked difference between the sampling methods used during quantitative and qualitative research. The objective of sampling during quantitative research is to secure a small number of entities which is representative of the larger population. A sample frame grounded in the theory of probability is used to achieve the representative sample. Qualitative researchers typically do not use statistical methods to do sampling as the focus is not on sample representativeness, as the outcome can usually not be profiled to a larger population. Collecting specific entities that can provide the researcher with a in-depth comprehension of the area of study is the core objective of sampling for qualitative research (Gill, 2020; Mohd Ishak et al., 2014).

Entities involved in qualitative research are not selected because they represent a specific population but due to their relevance to the research problem (Mohd Ishak et al., 2014). As such, sampling was done on the basis of its relevance, specifically, TMT members who were actively involved in the implementation of DT initiatives in pre-digital organisations. These individuals were chosen to be participants in the research study because of their unique insights and experiences.

Purposive sampling, which is known to be a non-probability method of sampling, allows for researchers to use judgement based on their understanding, in the selection of the sample (Bell Emma et al., 2018). The nature of the research questions, the framework on which the theory was based and the accessibility of the entities guided the selection

of the respondents that was included as part of the sample (Dasgupta, 2015). Heterogeneous sampling, a sampling technique that provides the researcher with the liberty to gain a wide range of perspectives on a phenomenon whereas homogeneous sampling focus on a specific perspective and the units within the sample share the same characteristics or traits (Rai et al., 2015). Homogenous sampling was used for this research study because it focussed on a particular perspective of senior and executive managers in pre-digital organisations, pertaining to the implementation of DT strategies.

Because the total number of senior and executive managers in pre-digital organisations embracing DT methods is unknown, non-probability sampling was used. According to (Sim et al., 2018) this method of sampling is the most applicable method of sampling when there is no sample frame. Initially, purposive non-probability sampling was used. This included a sampling approach in which discretion was used in the selection of participants who were most suited to form part of the study and provided valuable insights to the questions that formed part of the study. Based on the sample criteria, the sample was gathered via the researcher's network and their referrals. To locate additional possible interview participants, snowball sampling was used. This method was adopted due to the difficulty in selecting eligible interview participants and gaining access to specific individuals.

The sample size is seldom decided upon before the start of qualitative research studies, as the researcher does not always know what will be uncovered and by when the data will reach saturation point (Boddy, 2016; Gill, 2020). After the initial data collection phase, data analyses can be used as a mechanism to determine repetition of data points which in turn could point to data saturation point and the end of data collection for the research study (Gill, 2020). When sampling amongst a homogenous population is done during qualitative research, then a sample sizes of ranging between 20 and 30 participants are usually used (Boddy, 2016). After interviewing 12 senior and executive managers executing DT strategies in pre-digital organisations, a saturation point was reached.

Because of the use of purposive and snowball sampling, the industry, gender and age participants were not evenly represented in the sample. While sampling across industries ensures that data is gathered from a variety of experiences and circumstances, randomization and sample representation were not of key concern in this study. Instead, qualitative research emphasises relevance, or the ability of the interviewee to provide meaningful insights connected to the research issue (Gill, 2020; Mohd Ishak et al., 2014)..

## 4.5 RESEARCH INSTRUMENT

The interview guide that is presented in appendix 3 was used as the research instrument. Although (Golafshani, 2003) believes that the researcher is considered to be the research instrument during the execution of a study due to their actions having a direct influence on the quality of the study, the interview guide was used as the research instrument to ensure consistency in how the questions were administered and how the responses were captured. In addition, the intent of the interview guide was to act as a guide for the interviewer and to create some level of uniformity with regard to the data collected throughout interviews. The guide was created in a manner that it would validate the literature, but it was also kept at an appropriate level so as not to influence the participants. This was done in an attempt to eliminate bias and make room for extra participant perspectives to surface. Given that this was an exploratory study, participants were afforded the freedom to analyse the questions in a comprehensive and in-depth manner, which led to the discovery of new insights.

The research questions that are presented in the third chapter were drawn from the existing body of research. The interview questions were underpinned by a specific research question. This assisted in creating a golden thread between the research problem, research questions, the body of knowledge reviewed and the interview questions which contributed to the quality controls of the data collected .

The participants were asked open-ended interview questions that included questions to determine suitability to contribute to the research study, which meant confirming that the participants were senior and executive management actively participating in the implementation of a DTS in a pre-digital organisation.

To ensure that the study objective would be met using the data that was collected, two pilot interviews were carried out with senior managers. These interviews served to assess the interviewer's techniques as well as the relevance and comprehension of the questions contained in the guide. Adjustments to the guide were made in alignment with on the experience in the pilot interviews. Further to this, it was observed that participants provided insights that sometimes went off-topic and the interviewer needed to steer them back to achieve the objective of the research. This was done by asking probing questions that lead the interviewee back to the topic at hand.

## **4.6 DATA GATHERING PROCESS**

Data was collected by utilising semi-structured interviews. The semi-structured nature of the interviews allowed for structured and probing questions to administered to obtain a comprehensive understanding of the phenomenon (Thomas, 2003). Semi-structured interviews support qualitative research methods by answering questions of 'why' and 'how' (Thomas, 2003). Twelve TMT members from pre-digital organisations who are implementing digital transformation strategies were included in online face to face discussions that formed part of the interview process. The participants were all asked the same questions as presented in the guide in Appendix 3. The guide enabled the interviewer to ask the same questions to all participants and thereby acquiring various perspectives and insights which contributed to theory(Golafshani, 2003).

Due to time constraints and the accessibility to participants, an online internet based platform were utilised to conduct the 12 interviews. The interview process consisted of an in-depth 60-90 minute interview. It was noted that most interviews lasted 60 minutes. In order to explain the context within which the research study exited, a brief of the intent of the study and the concepts to be discussed was sent to participants before each interview.

## **4.7 DATA STORAGE**

Audio recordings and transcripts collected from the interviews were stored electronically and backed up in the event of data being lost. All data assets were protected by passwords to ensure confidentiality. Further to this, all audio recordings were transcribed into text using the software available on the online platform. These transcriptions were further enhanced by the researcher.

Anonymised and codified data was organized, stored, backed up and made accessible for processing on a digital device during the analysis of the results. Handwritten notes and recordings will be continuously processed and codified to supplement the digital data. Both the raw and processed data will be password-protected at all times. After the analysis phase, both raw and processed data will be stored digitally on an external storage device for safe keeping and for submission to the University of Pretoria for a



period of 10 years. After the study, physical and digital data will be removed and destroyed from any personal devices in accordance with data privacy laws as applicable to this study.

#### **4.8 DATA ANALYSIS APPROACH**

Qualitative research enable the researcher to create meaning from data received during a study(Bell Emma et al., 2018), This method of research requires the researcher to identify patterns across a data set, interpret it, assign codes to it and finally constructing themes to support the research question(Bell Emma et al., 2018). To reach a conclusion, the researcher needs to both analyse and interpret the data.

Interview transcriptions and handwritten notes were used in the analysis process. A thematic content analysis approach was adopted which allowed themes to develop from the participants' different perspectives. Midway through the interview process, the researcher started analysing the gathered data. The objective of the analysis was to identify themes that provided answers to each of the research questions. This process entailed reading each transcript and its associated handwritten notes. The data was used to allocate codes and code names in concert with the responses of the participants. After the codes was allocated, they were grouped into categories based on the commonality of their meanings. These categories was further summarised into themes. An iterative approach was followed to process the twelve transcripts together with the recordings and the handwritten notes. The data for each iteration can be found in Appendix 5. The researcher found that with each iteration, an improved comprehension of the data in the context of the research study. To conclude the data analysis process, a frequency analysis was done to provide a tally of the number of responses per theme and per category. Even though a small sample was used for this explorative qualitative study, the researcher was able to use the frequency analysis to confirm the findings.

Thematic Analysis is an extensive process where patterns and links between data elements are assigned to the researchers' emergent themes (Ibrahim, 2012; Terry et al., 2019). The thematic analyses method is a suitable method as it supports the generation of new insights and concepts from data during the qualitative research process(Braun & Clarke, 2006). This method of analysis will make it possible to identify the frequency of a theme, the relationship between phenomenon, the comparison between concepts and derive the necessary insights that will contribute to a theoretical model (Ibrahim, 2012).

## 4.9 RESEARCH QUALITY AND RIGOUR

When embarking on a qualitative study, the researcher must be actively engaged in each step of the research process (Golafshani, 2003). Because of this, researcher bias was anticipated. Pilot interviews were done to evaluate the interview process and to adjust questions where participants indicated that the questions was not clear. The researcher was able to enhance the interview methods throughout the data collection process in an attempt to reduce leading questions and researcher bias.

The following mechanisms were used to enhance the quality of the data collected.

- To achieve consistency across all interviews, an interview guide was used by the researcher.
- To determine whether the interviewees were suitable for the study, interview questions were asked in order to confirm their suitability
- To provide context, an explanation of the background and objective of the study was discussed with the participants in an attempt to explain unfamiliar terms and concepts.
- Transcription of the audio recordings were done verbatim to prevent the loss of valuable data
- The interview processes was only concluded once data saturation was reached
- Validity of data was confirmed through. Data triangulation was used to substantiate insights from diverse perspectives. Both senior leaders who deals directly with customers (customer-facing) and senior leaders who look after support services or back-office operations were interviewed. Based on the literature that was reviewed, exploration activities are primarily performed when new products and services are created for customers whereas exploitation is used for continuous improvement on existing solutions or ordinary capabilities (Tarba et al., 2020) . It therefore made sense to get an understanding of the two different perspectives.

Ethical clearance was from the Gordon institute of Business Science (GIBS) Ethics committee, prior to starting with the data collection process. The ethical clearance document can be found in Appendix 1. The consent form available in Appendix 2 was read out to all participants where their right to withdraw was emphasized, assuring them

that their confidentiality and anonymity would be maintained. All participants were requested to provide a digital signature for the consent form

Validity, reliability and bias are three critical aspects that must be managed in the execution of a research study (Bell Emma et al., 2018). The credibility of the findings in the research study, underpins the validity thereof. This was ensured through detailed and complete record keeping, interviews were recorded, transcribed and the interpretation of the data was confirmed with the participants of the study (Bell Emma et al., 2018). Reliability of the findings was underpinned by the consistency in the execution of the process. All questions were asked in a consistent manner across all interviews and the interpretation of responses were consistently applied (Bell Emma et al., 2018). The subjectivity of qualitative research meant that the data that was collected, was based on the participants lived experiences (Thomas, 2003). This made the process prone to bias (Bell Emma et al., 2018).

To prevent bias, the respondents were provided with the context of the research study to ensure the correct individuals participate in the research process. Pilot studies were done to guarantee that interview questions were clear and the participants understood the questions as well as the context. Furthermore, participants were ensured of the anonymity and confidentiality of the study.

#### **4.10 LIMITATIONS OF THE RESEARCH DESIGN AND METHODS**

Limitations to the study are listed below:

The following limitations were noted based on the research design:

- The study was limited to 12 interviews. Even though saturation was achieved based on the data collected, there were time constraints that made it difficult to gain more perspectives.
- The research aimed to speak to senior leaders in the top management teams of pre-digital organisations who are implementing a DTS. It was evident that the understanding of DT was different across the sample that was selected and that the organisations were at various levels of maturity in the execution of their DTS.
- The qualitative research study uncovered numerous perspectives to the research problem which could not be included in the result of the study due to its relevance,

even though the information was valuable in understanding the phenomenon of DTS implementation within pre-digital organisations

- The sample of senior leaders was all working for large enterprises across various industries. This means the perspectives of small and medium businesses were not collected. This was the result of the judgment sampling method that was utilises to select the sample to identify senior leaders in pre-digital organisations. Even though participants from small and medium organisations were not included in the study, perspectives that was required as part of this explorative qualitative study was to determine a link between organisational ambidexterity and adaptive strategy implementation like digital transformation.

## **5 CHAPTER 5 - RESULTS**

### **5.1 INTRODUCTION**

Analysis of the data that was gathered through the utilisation of semi-structured interviews is presented in this chapter. Before the findings are presented, the section begins with a description of the sample used in this study and continues with a discussion of the sample's suitability in light of the sample criteria. Then, the major themes that surfaced from the qualitative analysis approach are introduced, one by one, for each of the research questions.

### **5.2 SAMPLE DESCRIPTION**

The information in Table 1 below pertains to the twelve participants that formed part this study. A unique participant code has been assigned to each participant in order to secure their identity. Pseudonyms were employed to replace the names of individuals and companies/business units mentioned by participants in their responses. In the study, the researcher sought to obtain a full comprehension of the phenomenon and to ensure the substance of the findings by interviewing members at various levels of the top management team across various pre-digital organisations.

Senior leaders who have a role in the implementation of DT initiatives within pre-digital organisations were selected as interview participants using judgement sampling. The term "pre-digital organisation" refers to long-standing businesses in non-technological sectors like retail, automotive, and financial services that thrived before the advent of the Internet but now face extinction because of it (Chanias et al., 2019). The participants provided the information of the organisations that they are working for, the industry, the year in which the organisation was founded and the organisation size was captured. Below is the data that was conducted. Microsoft Teams was utilised as the online platform to conduct the twelve interviews. Digital tools were utilised to create recordings and transcriptions of the interviews.

During this exploratory research study, the researcher made every effort to achieve heterogeneity in the sample in order to obtain variation in data, but more emphasis was placed on relevance, i.e., the ability of interview participants to provide relevant insights

related to the research topic is the most appropriate approach for qualitative research (Gill, 2020). The TMT members who participated in this research study are listed in Table 1 below. Each participant was allocated a participant code in order to preserve anonymity.

**Table 1**

*Research Study Participants*

<b>Participant code</b>	<b>Job Role</b>	<b>Front/Back Office</b>	<b>Industry</b>	<b>Org. Size</b>	<b>Founded</b>
<b>P001</b>	Executive Manager	Back Office	Media and Communication	6 000	1994
<b>P002</b>	Senior Manager	Front Office	Energy	3 400	1881
<b>P003</b>	Senior Manager	Front Office	Mining	5 200	1917
<b>P004</b>	Senior Manager	Front Office	Government	114	1968
<b>P005</b>	Manager	Front Office	Healthcare	3 542	1971
<b>P006</b>	Manager	Back Office	Financial Services	9800	1992
<b>P007</b>	Manager	Back Office	Financial Services	38 472	1991
<b>P008</b>	Manager	Back Office	Financial Service	38 472	1991
<b>P009</b>	Manager	Back Office	Financial Services	38 472	1991
<b>P010</b>	Manager	Back Office	Financial Services	38 472	1991
<b>P011</b>	Senior Manager	Front Office	Financial Services	54 767	1862
<b>P012</b>	Senior Manager	Front Office	Financial Services	2 501	1921

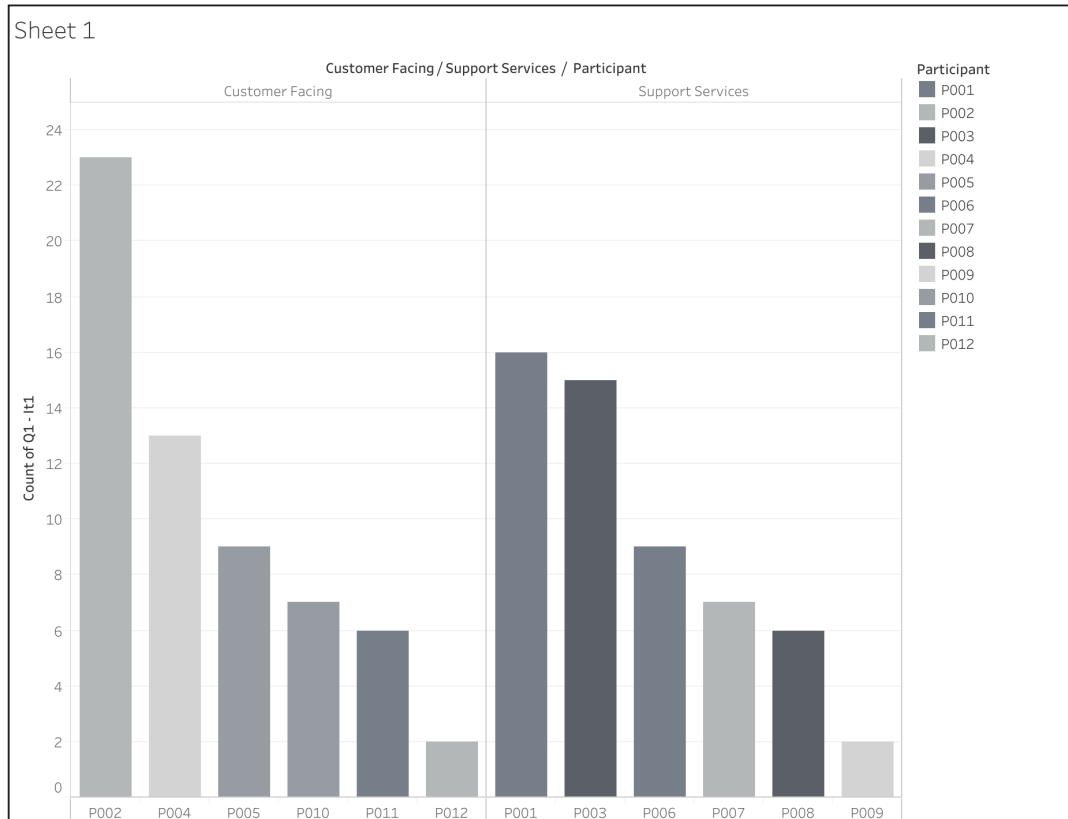
### **5.3 DATA SATURATION**

According to (Patricia et al., 2015), data gathering should continue until no new themes or categories are detected. When this occurs, data collection is complete. Data analysis began after twelve interviews because there were no new significant themes during the

remaining two interviews, as shown in Figure 5. The new codes gathered in these two interviews were consistent with the pre-existing themes.

**Figure 5**

*Data Saturation - Top management Teams*



## 5.4 SUITABILITY OF SAMPLE

### 5.4.1 SUITABILITY OF INTERVIEW PARTICIPANTS - TOP MANAGEMENT TEAM

To determine if interviewees fit the sample requirements, i.e., top management team members who are decision makers during the execution of a DTS, interview question 1 prompted participants to describe their role within their organisation. The results that confirms the suitability of the participants can be found in table 2 below

5.4.1.1 PARTICIPANT RESPONSES CONFIRMING THAT THEY ARE MEMBERS OF THE TMT  
WITHIN THEIR ORGANISATION INVOLVED IN DTS IMPLEMENTATION

**Table 2**

*Participants part of the Top Management Team*

<b>Participant</b>	<b>Response</b>
<b>P001</b>	<p><i>"I'm the groups, contracts and systems manager for XXXXX business.I'm basically almost sanctioned as a support function to the business"</i></p> <p><i>"To help strategize how we can digitize the entire environment."</i></p> <p><i>"Part of my role was is basically to move XXXXX away from the perception of being a cost center, but to be seen as a business partner to actually sit around the table to help make strategic decisions in terms of how the business should be operated and also decisions how decisions should be made."</i></p> <p><i>"And especially coming into XXXXX being a technology driven organisation to find some of these gaps and we are currently undertaking huge projects to actually start digitizing the environment"</i></p>
<b>P002</b>	<p><i>"Currently my role is the digital and Innovation Manager at XXX.my role is very frontline facing"</i></p> <p><i>"Ground-breaking a role not everybody has the opportunity to be part of such a frontline facing type of role."</i></p> <p><i>". I'd say bleeding edge. And we need to be able to collaborate and Co create with our customers out there. So a lot of our customers, like all these gadgets and.</i></p> <p><i>You know, for us to still stay ahead of the game with a value proposition. And that is favored by our customers. We've gotta be seen as innovators, right? So that's a little bit of a background in</i></p>



<b>Participant</b>	<b>Response</b>
	<i>terms of my role and what what I've been working on and why, you know."</i>
<b>P003</b>	<p><i>"my job description is senior manager"</i></p> <p><i>"Our core business for the last six or seven years has been in the IT space, it has been digital transformation.."</i></p> <p><i>"it's a two speed world which is the older, typically more manual kind of human intervention way of doing things. Our business as usual and then there's the digital world, which is all around efficiencies and optimizing"</i></p>
<b>P004</b>	<i>"The team I manage deals with doctors and pharmacists, mostly, and we've had requests to head more towards digital technologies.."</i>
<b>P005</b>	<p><i>"My role my post description is Assistant Registrar of XXXXX legal support."</i></p> <p><i>"We do most of our executions in registrations on a manual basis. We are busy with a with a strategy where we have to implement over the next five years between 2022 and 2025. Uh to implement our electronic device registration system, the billl electronic. This registration bill was approved in 2019."</i></p> <p><i>"An authority that was given to us to become paperless"</i></p>
<b>P006</b>	<p><i>"I'm a compliance manager. I am also part of other committees in the group function group such as the compliance working group"</i></p> <p><i>"So what is is I mentioned earlier. Currently we on the drive. Umm to say there is a compliance methodology in place. So we try to automate that."</i></p>
<b>P007</b>	<i>"So my current role in my organisation is I am a lead technology partner in, in the IT space. I lead a team of developers and and and associated skill sets and and our job is really to. To help our business to achieve, you know, firstly stability around the day-to-day work and then secondly, also if there's any development that</i>

Participant	Response
	<p><i>we need to do or any tech advice that we need to give, we give that just to help them to move from where they are now to their next level"</i></p> <p><i>"So I guess my role would be to we are the implementers or the doers of strategy. So a lot of the time we might contribute I guess to to shaping strategy at the level that we interact at. But mostly I think we are the ones who who really take the time to to take the strategy and start to implement that."</i></p>
<b>P008</b>	<p><i>"I've got 2 main areas that I look after and. They can broadly be a change function and a Business-as-usual function on the one end reduce application support a BAU application support on the main on the mainframe environment. So we see to BAU activities but also any change to that environment that is required by product."</i></p> <p><i>"But we do look at modernization and innovation type of. Initiative. So if there's a process that we can digitize or if there's a robot that we can put in place to to take over some human activities, that's what we do in that environment."</i></p>
<b>P009</b>	<p><i>"my current role is a senior manager"</i></p> <p><i>"We are doing a very big automation drive there where they also wanted to introduce a similar type of digital assistance similar to Siri and Alexa"</i></p>
<b>P010</b>	<p><i>"I am a senior manager for cyber security governance"</i></p> <p><i>"We are moving away from traditional ways of doing business"</i>  <i>"..robotics are being included in almost all processes" ".we are implementing systems that are moving us from manual processes"</i></p>
<b>P011</b>	<p><i>"I am a lead support engineer"</i></p> <p><i>"in my role I am responsible for the implementation of the technology to support the digital strategy"</i></p>
<b>P012</b>	<p><i>"I am the head of brand strategy and sponsorship"</i></p>

Participant	Response
	<i>"in my role I look at how we integrate the business strategy with how the organisation delivers to the business" "..DT is part of our organisational long-term strategy"</i>

## 5.5 PRESENTATION OF RESULTS

Organisational ambidexterity have not been linked to adaptive strategies implementation in literature, however in practice it is evident that the components of ambidexterity, the balancing of explorative activities and exploitative activities have always been linked to organisations who perform well in evolving environments (Chakma et al., 2021a). In an effort to provide responses to the research questions, the study's findings are organised around the research questions and the themes that developed during the interviews.

### 5.5.1 TRIANGULATION OF DATA

This study explored the views of top and middle managers to obtain comprehensive insights regarding the phenomenon of organisational ambidexterity constructs during the implementation of DT strategies in pre-digital organisations. Every theme that emerged was verified by both top and middle management in customer facing as well as support operations of pre-digital organisations thereby adding credibility to the research findings as different perspectives of DT was captured. The themes that emerged per research question and the summarised frequency of responses are presented in the table 3 below. The detailed frequency analysis containing categories and identifying participants that commented per theme can be found in Appendix 3.

**Table 3**

*Triangulation of Data*

Theme	Category	Customer Facing	Support Services	Grand Total
<b>Ambidexterity</b>	Contextual Ambidexterity	1	3	4
	Structural Ambidexterity	5	3	8
	<b>Total</b>	<b>6</b>	<b>6</b>	<b>12</b>
<b>Digital Transformation</b>	Clear DTS	4	1	5
	<b>Total</b>	<b>4</b>	<b>1</b>	<b>5</b>
<b>Innovation</b>	Method of innovation	4	3	7
	<b>Total</b>	<b>4</b>	<b>3</b>	<b>7</b>

Theme	Category	Customer Facing	Support Services	Grand Total
Resource Allocation	Funding	2	3	5
	<b>Total</b>	<b>2</b>	<b>3</b>	<b>5</b>
Workforce	Culture	1	3	4
	Skills and Capacity	6	6	12
	<b>Total</b>	<b>7</b>	<b>9</b>	<b>16</b>

## 5.5.2 RESULTS FOR RESEARCH QUESTION 1

### Research question 1: What are the constructs of ambidexterity selected during the implementation of a DTS

Research question 1 aimed to explore the constructs of ambidexterity selected during the implementation of an adaptive strategy like digital transformation. Interview Question 3 participants to provide their perspectives into the activities and ways of work during the implementation of a DTS. Research question 1 was designed to understand the exploitative and explorative activities that happens during the implementation of a DTS and the mechanisms used to balance these activities translating into a specific construct of ambidexterity.

Table x below presents an overview of the themes related to Research Question 1, presenting the constructs that emerged related to the theme of ambidexterity.

**Table 4**

*Themes - Research Question 1*

Question	Theme	Category
Research Question 1	Ambidexterity	Contextual ambidexterity
		Structural ambidexterity

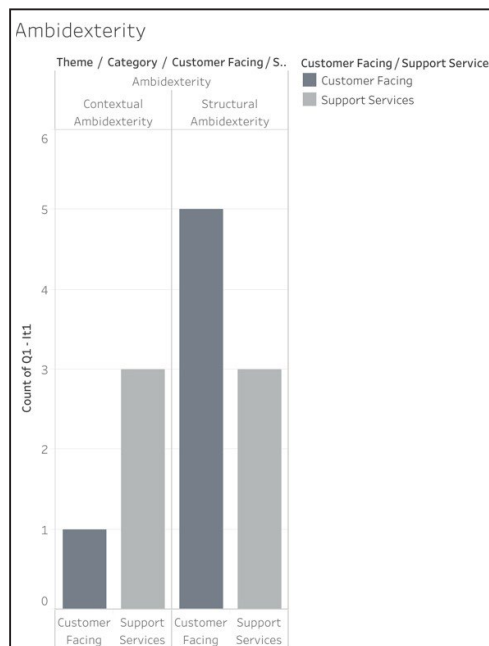
A key finding related to organisational ambidexterity constructs during the implementation of an adaptive strategy like digital transformation, was that organisational ambidexterity can definitely be linked to the execution of DT strategies. The results that emerged revealed that different constructs of ambidexterity were applied during the strategy implementation process.

5.5.2.1 AMBIDEXTERITY

The objective of Research Question 1 was to determine the constructs on ambidexterity selected during the execution of a DTS. The constructs were never explicitly referred to as the participants were not privy to organisational ambidexterity literature. The researcher posed questions relating to exploitative or business as usual activities and explorative or innovation activities and how these activities were balanced during the execution of the DTS. Based on the responses, the researcher was able to link the response to a specific construct of ambidexterity. Two constructs of ambidexterity was apparent in the results of the research study. Contextual ambidexterity, external ambidexterity and structural ambidexterity as presented in Fig X below. The results are split across customer-facing and support operations participants.

**Figure 6**

*Ambidexterity*



5.5.2.1.1 CONTEXTUAL AMBIDEXTERITY

Four of the twelve participants that was interviewed indicated that contextual ambidexterity was being employed in the execution of their DT strategies. One customer facing manager and three support services managers described how both explorative

and exploitative activities relating to DT were balanced within single teams or business units who are responsible for business as usual operations, continuous improvement and identifying and implementing new opportunities. Participants were able to provide insights into how DT activities are being executed within their organisation and/or teams and how alignment and adaptation is achieved.

*P001: "My role in the department is to look at what are the pain points or we conduct surveys with our relevant users and based on the feedback we get, that's how then we determine how do we improve and implement solutions.so it happened organically where we sat down as a team and asked ourselves how do we remove the business as usual stuff, automate that and allow us as a department to become more strategic"*

*P007: "It is the same team (exploitation and exploration activities). It's the same team that understands the current challenges that went out to look for a solution and implement it.and that works in the sense that if one has a good understanding of what the problem statement is, when we're going out to look, then for a solution, it's very targeted because you know what you're trying to solve for.but I think that needs to be balanced out with making sure we have a certain level of stability.. I think there is no pint in going out and pushing innovation and pushing boundaries and the envelope when.you know we don't have the basics right.."*

*P008: "But what we trying at the moment is to keep it almost inhouse in a closed team. What we can do, we try and do ourselves"*

*P011: " We don't have dedicated resources for these types of initiatives. it's the same team who also does business as usual activities"*

#### 5.5.2.1.1 STRUCTURAL AMBIDEXTERITY

Eight of the twelve participants that was interviewed indicated that structural ambidexterity was employed during the implementation of their DTS. Structural ambidexterity is the mechanism employed by organisations in the balancing of exploitative activities and explorative activities using dual structures. Five customer facing managers and three support services managers demonstrated how they employ structural ambidexterity during the execution of their DTS. Participants agreed that there

were segregation of duties between the business as usual team (exploitative) and the DT team (explorative) who implemented the digital solutions.

four of the eight participants that was interviewed indicated that structural ambidexterity combining both internal and external skills for the implementation of their DTS was used. External structural ambidexterity refers to how organisations separate exploitative activities and explorative activities by externalizing (outsourcing) either of the two. Three customer facing managers and one support services manager demonstrated how they employ external structural ambidexterity during the execution of their DTS. The data collected, provided evidence that even though the building of the digital solutions was outsourced, the strategy was driven from the organisation itself.

*P002: "And pretty much trying to segregate between the projects team and the business as usual team.and I think that has been our challenge in terms of now communicating to our top level management because they don't see the distinction between what's frontline customer solutioning versus what happens in the back office.this has definitely not been organic.we literally had to lead the business and make them understand that these are two sort of separate entities altogether.and we're always grappling when it comes to capacity and for resourcing the approach that has been sort of adopted for transformation projects is pretty much been we'll try and outsource as much as we can to the system integrator"*

*P003: "So we translate business language into technical language for our clients and then facilitate the actual roll out and implementation of the strategy"*

*P005: "To be able to mimic the manual system and then come up with a solution for the electronic system that will cover all our bases..we also have an alignment stream whereby we need to align the borders of most of these offices in the country. Our partner at the moment is XXXX and we are working hand in hand to implement the solution"*

*P010: "We don't develop inhouse. A decision was made that we concentrate on banking as our core function anything else really is outsourced"*

*P004: " All digitization requests goes to the IT Exco level who decides what takes priority.it is assigned to a product specialist who documents the requirements, test and provide us with the finished product after a few months"*

P006: ".these are respective functions and they almost run in isolation.there are dependencies , so when we work we have a lot of stakeholders to consult with in order to introduce change.there is a digital team and IT team because of our structure"

P009: "Within XXXXX we are a separate team that does the (digital) use cases. We do work with the auditors who does the business as usual., and we work with them to get the information, but when we come to creating the bots, testing them and taking them to production, we kind of work in a silo "

P012: "In reality there are different teams that look after both (business as usual and transformation)..DT sits mostly in the IT space and there are certain people that are allocated to work on a specific task team"

### 5.5.3 RESULTS FOR RESEARCH QUESTION 2

#### **Research Question 2: What are the factors that contributed to the selection of the construct of ambidexterity during the implementation of a DTS**

The aim of this question was to identify the factors that influenced the selection of the constructs of ambidexterity. Interview question 4 was designed to comprehend the factors that led to the choice of the ambidexterity strategy within the organisation or team during the implementation of the DTS. Participants were asked to draw on their own perception of how these factors impact the construct that was selected in an attempt to positively link the factors to the construct.

Table 5 below presents an overview of the results related to Research Question 2, presenting the emergent categories related to each theme.

**Table 5**

*Theme - Research Question 2*

<b>Question</b>	<b>Theme</b>	<b>Category</b>
<b>Research Question 2</b>	Digital	Clear DTS
	Transformation	
	Innovation	Method of Innovation

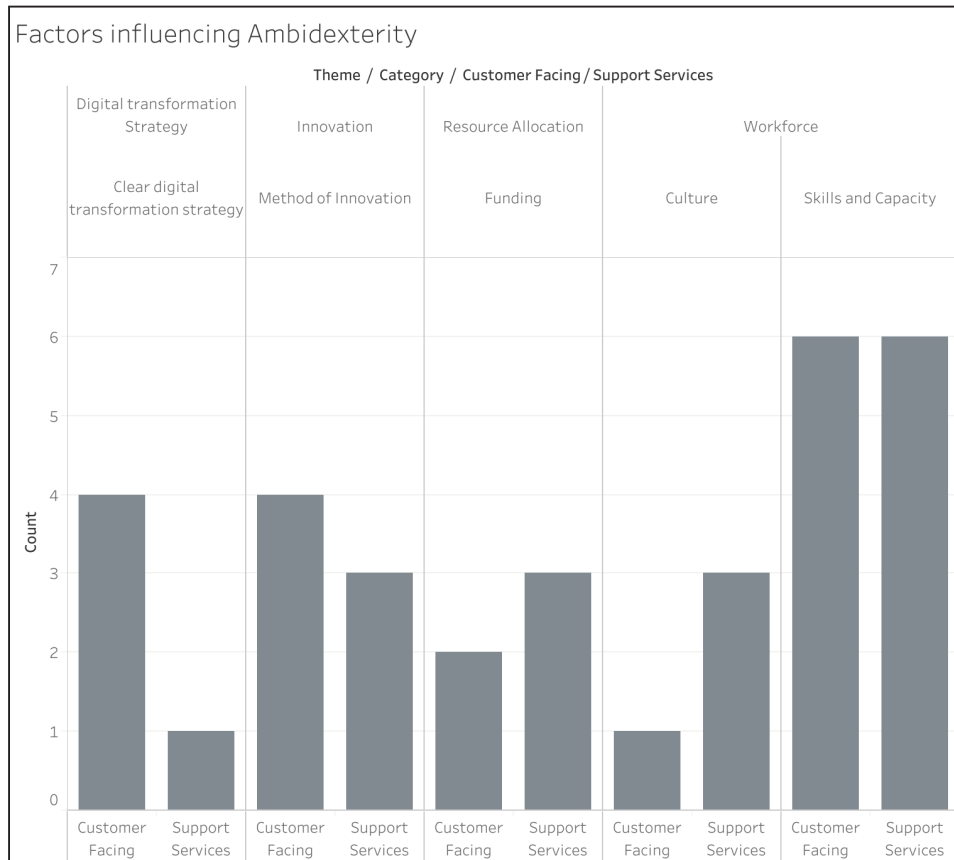


Question	Theme	Category
	Resource Allocation	Funding
	Workforce	Skills and Capacity
		Culture

The results that emerged from the interviews was that various factors contributed to the construct of ambidexterity that was employed during the implementation of the DTS. In most cases, the construct of ambidexterity happened organically due to inhibitors and opportunities in the organisational context. Each senior manager provided their perspective on the factors that they believed influenced their way-of-work. In certain instances senior manager struggled to make a discern between the formulation of strategies and the implementation thereof but was able to articulate in their narrative how and why they are employing a specific construct of ambidexterity.

**Figure 7**

Factors influencing Construct of Ambidexterity



### 5.5.3.1 DIGITAL TRANSFORMATION

Exploring and exploiting gains of innovative digital technologies involves the transformation of important operations and usually impacts not only products and services, but also managerial processes and the organisational structure. The factors that influences the construct of ambidexterity during the execution of a digital strategy stems from the effect of DT itself on the organisation.

As leaders of pre-digital organisations recognise the opportunity to merge their current ordinary capabilities with dynamic capabilities as a consequent of digital technologies, they are creating their organisations digital strategy (Sebastian Ina et al., 2017). These strategies take advantage of the digital economy and its ensuing benefits for business, rather than merely focussing on the technologies itself (Sebastian Ina et al., 2017). Although this study wish not to minimise the significance of developing effective strategies, research has proven that organisations generally find it challenging to implement their digital strategies effectively (Sebastian Ina et al., 2017; Weiser et al., 2020a). Implementation has been regarded as a strategic afterthought for a long time,

as organisations focus mostly on strategy formulation and solely on the organisational structure during strategy implementation, despite the fact that the two are interdependent(Weiser et al., 2020a) . In addition to this , top and middle management in positions of authority are sometimes deceived into believing that expressing a well-conceived strategy to the group is equivalent to its implementation(Weiser et al., 2020a). This study leans on the theory that successful strategy execution is the foundation of enacting an organisation's capabilities and is fundamental to achieving a sustained competitive edge (Tawse et al., 2019; Weiser et al., 2020a).

#### 5.5.3.1.1 CLEAR DIGITAL TRANSFORMATION STRATEGY

Participants agreed that a clear DTS or the lack thereof influenced their selection of the construct of organisational ambidexterity. Five of the twelve participants indicated that they have a clear and documented DTS within their organisation. Three customer facing managers and two support services managers provided insights into how the strategy influence how they manage exploitative and explorative activities during the implementation of their DTS. Organisations require a DTS that acts as the foundation for organising, prioritising, and executing the whole DT process. The utilisation and incorporation of digital technologies often has a wide-ranging impact on businesses beyond its boundaries, affecting most aspects. Because of the broad scope and far-reaching implications, a clear and documented DTS endeavour to organize and prioritize the numerous digital transformation scenarios

Where no clear DTS exists the participants indicated that they found digitization within their organisation fragmented with limited resources allocated to the initiative. It is noted according to the data collected that these organisations typically employed contextual ambidexterity to balance exploitative and explorative activities.

*P001: " Currently we don't have a .DTS.we have a strategy in terms of technology that drives the XXXXX business.and then there's a strategy for legal, there's a strategy for finance.there's a strategy for marketing. So it's all fragmented so and the reason being that we don't have a C-level that's responsible for strategy and innovation in the business and that's why it's a bit scattered"*

*P008: "formally no (.DTS), so its something that we want to do..if I can say that there's no clear strategy that I can look towards to say this is how we're going to move from a*

*current environment to a to-be state.so we kind of doing it on our own if that makes sense.."*

Participants agreed that a clear DTS seems to direct how the organisation or team organize themselves around the strategy implementation process. P002 and P0055 explains how the formulation and subsequent implementation of the strategy assists them to act and in their scenario, to outsource the implementation of the digital solutions which is aligned to the external construct of ambidexterity.

P005 believes that a clear DTS as described provided them with insight into how their organisation could achieve its DT objective. The strategy provide them with clarity about the structure and skills they need to execute on their mandate. P007 believes that a clear strategy assist them in being adaptable around the technologies that they select as part of the execution of their DTS now and in the future. The flexibility to constantly look at the market for the latest solutions that assists them to execute their strategies and enables their way-of-work.

*P002: "You know the strategy formulation and execution I think is really well locked down when we decide to take on bigger pieces of work.we look at the resources capabilities and how stretched our teams are and go out into the procurement process and we come back with the system integrator to be able to assist us in terms of executing our strategy".*

*P005:"We are busy with a strategy where we have to implement over the five years.an electronic device registration system. The Electronic bill has been approved and has been signed as an act in 2019..that we are able to register electronically going forward..we have to do stakeholder engagement with our staff as well a with our clients.we have to have buy-in from them to go paperless, to go electronic.we need to become integrated with banks, integration with Home affairs, integration with SARS.integration with all our clients and stakeholders.We have different streams and we have directors and managers on the various streams.we also have an alignment stream where we need to align to all our offices.our staff must be reskilled and retrained as they will have different duties going forward.Our partners at the moment is XXXX where we working hand in hand to implement the strategy"*

P006 and P012 both have DT strategies that enables them to understand the vision of the organisation and they organize themselves accordingly. The data collected demonstrated how collaboration between these separate teams took place through committees and forums. Having a digital strategy in place contributed to the decision to

follow a structural ambidexterity approach. P007 discussed how their involvement in the shaping of the strategy contributed to the selected construct of ambidexterity.

*P006: "I would say yes (.DTS), we are currently on a drive and have a big picture in place.."*

*P007: " So a lot of times we might contribute I guess too shaping the strategy at the level that we interact at. But mostly I think we are the ones who really take the time to take the strategy and start to implement that. And part of the implementation is to understand what tools are best fit to actually do the work we need to do. Make those decisions, advise on what these two sets could be also taking into account not only what the strategy looks like now, but possibly looking at what the market has available to us in terms of tools and technologies \_ I just think that in our particular case, the team that actually understands intimately the details of what the challenges are, are perhaps better suited to go out and find the right solution to implement"*

*P012: "A digital strategy exists. It was very clear. I think there was such a big focus on the direction that we're taking that there was a digital shift..at an executive level , it has reinforced almost everything that we did. There is different teams that looks after business as usual and innovation. There is a team that specifically looks after client solutions, there's a lot of innovation, a lot of prototyping..DT is mostly driven from the IT space.and there are certain people allocated to work on specific task team"*

#### 5.5.3.2 INNOVATION

Innovation within organisations necessitates encouragement, collaboration, and communication, but it typically entails distinct actions to be taken; it is the beginning of something new whereas transformation is the process of implementation that follows the initial innovative spark. It also implies an eventual conclusion once the transition is accomplished. How organisations innovate has an impact on the implementation of their DTS and according to the data gathered during this research study, also influence the construct of ambidexterity selected for the implementation of the DT strategy.

#### 5.5.3.2.1 METHOD OF INNOVATION

Bottom-up innovation refers to the phenomenon where individuals within teams or within the organisation generate ideas to solve organisational challenges (exploitation) or to create opportunities for new products and services (exploration). This method of innovation has a direct influence on constructs of ambidexterity and how resources are allocated. Seven out of twelve participants indicated that innovation within their organisation follows a bottom-up approach and that it influences how they organize themselves around the implementation of their digital strategies. Five customer facing participants and two support services participants explained how this method of innovation influence the construct of ambidexterity employed.

Participants were able to demonstrate how the ambidexterity construct is brought to life through their innovation process. Participants that have indicated that the bottom-up innovation process contributed to their selected construct of ambidexterity utilised structural, contextual and external ambidexterity.

*P002: " So it starts of bottom up and then we sort of entice them and show them(executives) what we are able to achieve.it is sort of experimental..and everybody says it's the best thing since sliced bread and then they start pushing it.the .DT implementation projects are spearheaded by the IT people and it sort of management exec level downward.but it is most of the time actually driven from commercial side"*

*P004: ".actually has an idea of what the problem might be, so we've developed our own work arounds. We've written our own manual on how to improve the quality of our service.how to make our lives simpler.All ideas and requests go through to IT EXCO level..the people who manages the finances and the other resources decide what takes priority."*

*P006: ".it's about selling our ideas and the pain points.so it's almost like you have to put a sales pitch together to talk to top management in order to get the approval in order to get the buy in and budget as well as for change management...we are part of committees in the group function, the automation and digitization working groups..So this is coming from the way we work..it purely comes from the individual..identifying the need to work more efficiently and ways to enhance.in order to produce a better service..that comes from the individual creativity and ideas"*

P008: *" So we liaise with certain areas within the business unit.we identify opportunities or problems.we build a business case for the senior managers to determine whether it is something worth exploring and then we execute on it"*

P009: *".it was kind of expected for everybody to contribute to new ideas, to come up with new things.the reliance was a lot on the employees in the European world to bring new innovative ideas that management would then look at."*

P010: *"Even though we outsource the implementation of our digital strategy, the ideas are always generated within the XXXXX Bank.the problem statement or the enhancement is within the XXXXX bank..A position paper is written and only when approval is received from management it is outsourced"*

P012: *"Where we are now is innovation is encouraged.as part of the culture..and what happened is a new platform has been created where employees can create teams within the organisation to come up with ideas.top management evaluate the ideas and probably funding given to these initiatives."*

#### 5.5.3.3 RESOURCE ALLOCATION

To do well in an ever changing context, an organisation needs to be able to integrate, learn from, and reconfigure resources. It also needs to be able to adapt its current resource base and absorb external resources. In the context of this study, resource allocation is the activity of how resources are redirected in an attempt to implement the organisations DTS successfully. Participants indicated that how funding was allocated influenced the construct of ambidexterity selected for the implementation of their digital strategy.

#### 5.5.3.3.1 FUNDING

Five out of twelve participants agreed that how funding was allocated within the organisation in the context of the implementation of their DTS had a direct impact on the construct of ambidexterity they have selected.

Participants were able to demonstrate how the funding model and how it is split between exploitative and exploratory activities impact their approach to ambidexterity in the

context of their DTS implementation. P002 demonstrates how the funding allocation, the objective and their understanding of how the funding model between back office (exploitative) and customer (exploratory) differs. The data collected provides the context on how this has a direct influence on the selection of structural ambidexterity.

*P002: "There's almost a mismatch in terms of how fast the strategy gets formulated and executed versus what has been budgeted. You know, and sometimes the strategy goes far ahead of what we actually have from a budget perspective. and now we have a little bit of a blank cheque type of thing where they have allocated a pot of funds, but they will not be able to tell you necessarily what will actually come out of there. and that for me, I think is a little bit dangerous, but because they just know from a strategy perspective, we've been told we need to catch up with retail. so you need to do whatever you need to do to catch up with them. there's a specific set of budgets that's been allocated for back office activity and there is a specific way that we write off or depreciate the IT investments and assets over time. but when it comes to our customer. we need a different type of financial model"*

*P003: "So they needed to implement all of these systems and they had a lot of money. The venture capitalist put a pool of money in so that they can start doing exploration because they were convinced they could extend the life of the mine. they needed a way to manage and coordinate their projects.."*

*P004: "All requests now needs to go through at the IT EXCO level \_ so requests are made, but it now takes much longer for requests to be approved. so we might have made the request, but then the people who manage the finances and the other resources of the IT staff and developers and so on, they decide what takes priority and what doesn't"*

Where funding is not being adequately allocated to the DTS implementation, the data in this research study confirms that contextual ambidexterity is selected.

*P008: ".And also we kind of is so strapped, this is one of the challenge I think that we have. As the organisation is very stingy on bringing people on board to be able to do things. So it is a struggle for us and what we have to do at the moment."*

*P011: "There isn't necessarily the resources from both the cost and the people and the skills perspective to support it. and it therefore sort of happens this way"*



#### 5.5.3.4 WORKFORCE

The workforce of an organisation refers the number of people that could be assigned to any task. Based on the data collected during this research study, the skills and capacity as well as the culture was identified as factors that influenced the selection of a specific construct of ambidexterity.

##### 5.5.3.4.1 SKILLS AND CAPACITY

There is a range of skills that is required to implement a DTS. In most pre-digital organisation, these skills does not exist and this pose a threat to the successful implementation of a DTS. Participants were able to demonstrate how the lack of skills and capacity contributed to the selection of the construct of ambidexterity selected.

All participants indicated that skills and capacity had a major influence on the construct of ambidexterity selected. The knowledge required in the teams who are implementing digital strategies is not only technology-related skills but also a sound understanding of the existing organisational routines and the organisational context. Due to capacity constraints, it is difficult for these resources to perform both their business as usual activities (exploitation) as well as being part of the exploration team. P002 and P003 opted to employ external ambidexterity where portions of the work is outsourced to system integrators in order to balance the demands of exploitative and exploratory activities during the implementation of their DTS.

*P002: "Business as usual teams that were the subject matter experts and they've been around in the environment for a long time. They were now needed. The needed to be brought onto the project, as you know, subject matter experts to be able to assist the transformation team in defining the design et cetera. for all these sort of ground breaking types of projects. it was a very complicated space because you needed the background and the business understanding and rules to be able to pass that along to the transformation team. we've had a lot of engineers now trying to make a transition into like sort of leadership or business or digital or whatever the case may be and they're trying to, you know, become a lot more generalists, but unfortunately they have not been very successful. rolling out a solution which might have Capex but at the same time also we need to look at that margins that we're making from our customers and what*

*technology cost, etc. the engineers battle with that.it becomes difficult from a time and capacity management point of view, it was very difficult now to understand how much of time you're going to be requiring from that specific business as usual SME.it becomes challenging as people are double hatting.quadruple hatting"*

P003: *"So the big challenge, as I said was first of all was capacity and then very quickly came out that there was also a little bit of a skills issue.."*

P007 and P008 indicated that the deep knowledge and specialised skills that is required to digitize their respective environments, forced them to rely on internal skills with deep institutional knowledge. The scarcity of these resources is what influenced the decision around a contextual construct of ambidexterity.

P007: *"So the tooling that we have is very specialised, it comes from a single OEM manufacturer and uses a particular language. So we need specialist skills that are hard to find and we therefore use the same team"*

P008: *"The opportunity to innovate is there but we find ourselves resource strapped. So we try..we have to kind of juggle between the two.so on the one end we need very deep knowledge whereas on the other end it's more general..so we are analysts rather than developers and specialists and that its more of a general skillset that we have"*

#### 5.5.3.4.2 CULTURE

Organisational culture is known as the phenomenon where the values and attitudes of an organisation influence the employees' behaviour. Participants believed that organisational culture was a factor that contributed to the selection of a construct of ambidexterity. They attributed the culture as inhibiting progress of the implementation of the DTS. Four out of Twelve participants indicated that culture as a factor that influenced the selection of their specific construct of ambidexterity. The participants selected contextual, structural and external ambidexterity and based on the size of the sample, it was not possible to determine if there was a specific construct that was influenced more by the culture of the organisation.

P001: *" I think the biggest challenge that we face is change management.people are set in their ways..does it how it's been done for the last 20 years..It's been working, so*

*why change do I need to change?...and that was part of the reason why some projects never lifted.."*

*P003: "The challenges have been many and I think the biggest challenges were people and there was a lot of resistance to change.you know they're used to chasing paper..and it doesn't exist"*

*P005: "People are chosen to be part of these streams. We have a lot of pushback from staff and we have a lot of pushback from our stakeholders.so we are busy with vigorous stakeholder engagement to get the buy-in from staff and the stakeholders"*

*P007: "So I guess just being in a bank and maybe being in this section of the bank, people are risk averse.so maybe there is caution and there is a need to be risk averse.and that sort of hinders but sort of delays innovation.maybe business needs an injection of new life and youth and people who are perhaps a little bit more open or maybe understand a little bit more.and maybe that could help to sort of drive a culture of innovation".*

## **5.6 CONCLUSION**

This chapter discussed the results to research questions presented as part of chapter three.

Results of the study revealed that constructs of ambidexterity were used in the execution of a DTS in pre-digital organisations. Vial, (2019a) determined that DT create organisational ambidexterity by default. Even though the outcome of DT is ambidexterity according to Vial, (2019a) , the study wished to explore whether ambidexterity could be linked to the to the implementation of an adaptive strategy implementation like digital transformation. The study found that three specific constructs of ambidexterity was utilised by organisations who said they were implementing a DTS. Contextual ambidexterity, where alignment and adaptation activities are executed by individual employees, external ambidexterity where externalization is utilised to balance exploitation and exploration activities and structural ambidexterity that utilises dual structures or structural separation in the balancing of explorative and exploitative activities; were the constructs used.

In an attempt to further understand the link between organisational ambidexterity and the implementation of an adaptive strategy like digital transformation, data was gathered to understand the factors that influenced the selection of the constructs of ambidexterity. The key factors identified by most of the participants were the existence of a clear and documented DTS, the method of innovation, resource allocation, skills and capacity and organisational culture. Organisational culture, resource allocation, skills and capacity usually plays an important role in any transformation or change initiatives and it was therefore expected as a factor that would influence the selection of a construct. The method of innovation and the existence of a DTS was an important finding as the strategy formulation process is integral to adaptive strategy implementation. Innovation in organisation, as the first step in the DT process provided insights into where ideas originates and the structures that supports the realisation of the ideas

## **6 CHAPTER 6 - DISCUSSION**

### **6.1 INTRODUCTION**

In this chapter, the researcher look closely at the method outlined in Chapter four that was used to gather the data presented in Chapter five. Chapter two presented the existing literature, and this chapter compares and contrasts that literature with the insights presented here in order to draw definitive conclusions to the questions found in chapter three. The conclusions add to a better understanding of organisational ambidexterity during adaptive strategy implementation. The study identified the specific constructs of ambidexterity as well as the factors that influenced their selection. Having implemented a specific construct of ambidexterity during the implementation of a DTS, points to the fact that ambidexterity can possibly be linked to the implementation of an adaptive strategy. The discussion is organised around the questions in the research study and provides insights into the topic described in the first Chapter.

The sample criteria for this study were top management team members from pre-digital organisations who were in the midst of executing DT strategies. Interview question 3 asked participants about the activities they executed while executing digital strategies and how they balanced exploitation and exploration to support those activities. This question aimed to establish the link between DTS implementation and ambidexterity. Question 4 asked participants to consider the factors that influenced their choice of the specific construct of ambidexterity.

#### **6.1.1 RESEARCH PROBLEM**

There has been a renaissance in the evolution of strategy implementation literature directly attributed to the emerging research on adaptive strategy implementation, however this has been accompanied by fragmentation in the theory that exist, as a consequence of the diverse perspectives (Weiser et al., 2020a) . Weiser et al.(2020a) propose a synthesis of the antiquated structural method of strategy implementation with the more current adaptive approach, which results in an integrated view of strategy implementation. This creates a coordination problem, as it is challenging for organisations to coordinate greatly disparate and socially constructed perspectives and behaviours of individuals across the organisation into a unified plan of action (Koryak et al., 2018; Weiser et al., 2020a). Additionally, strategically balancing exploration and

exploitation within the organisation is the greatest difficulty leaders have throughout the execution of an adaptive strategy like DT (Koryak et al., 2018; Weiser et al., 2020a). Both exploration and exploitation are influenced by competing market and regulatory forces, the roots of which lie in the varying levels of knowledge-gathering capacity present in different organisations (Koryak et al., 2018; Weiser et al., 2020a).

Dynamic capabilities and ambidexterity theories have influenced strategic management discourse that seek to determine how organisations are able to balance conflicting demands (Popadiuk et al., 2018; Weiser et al., 2020a). As a result, literature on organisational ambidexterity primarily focus on how businesses balance their incongruous demands with specific attention given to the drivers of organisational ambidexterity and how human resource systems, senior leadership team attributes, contextual elements and organisational structures contributes to the attempt at ambidexterity (Jansen et al., 2020). However, according to Weiser et al. (2020), organisational ambidexterity has not been linked to strategy implementation even though the integrative view requires new insights into organisational routines, systems and processes that could assist in solving the coordination problem that exists as a consequence of the integrative view of strategy implementation. Although marked progress was made in the last few years, linking organisational ambidexterity to various theories, there is limited application of the theory to adaptive strategy implementation (Jansen et al., 2020; Weiser et al., 2020a).

This study sought to make a contribution to an integrated framework for adaptive strategy implementation by exploring the constructs of organisational ambidexterity selected, as well as the factors that influences the selection of a specific construct during the implementation of an adaptive strategy like Digital Transformation, in an attempt to determine a link between organisational ambidexterity and adaptive strategy implementation.

## **6.2 DISCUSSION OF RESULTS FOR RESEARCH QUESTION 1**

**Research Question 1: Identify the constructs of ambidexterity selected during the implementation of a DTS**

Research question 1 aimed to determine the constructs of ambidexterity used during the implementation of a DTS. The question also sought to understand the digital activities that were embarked on by the pre-digital organisations that formed part of the study. The insights into the digital activities performed and how it was executed in the organisational context provided an understanding of the organisational ambidexterity construct utilised during the execution of the strategy. Ambidexterity ultimately stems from the conflicting strategic decisions that leaders are faced with during their strategy implementation process and the subsequent trade-offs that they must make in their quest to achieve a competitive edge (Tarody, 2016). The discussion of the theme that emerged in relation to the constructs of ambidexterity selected during the execution of a DTS follows in this section.

### **6.2.1            AMBIDEXTERITY**

The study found that organisational ambidexterity was utilised by pre-digital organisations in the implementation of their DTS. Thereby confirming the link between organisational ambidexterity and the implementation of an adaptive strategy like digital transformation. This was expected as ambidexterity ultimately stems from the conflicting strategic decisions that leaders are faced with during their strategy implementation process and the subsequent trade-offs that they have to make in their quest for achieving a competitive edge (Tarody, 2016).

Activities relating to exploitation and exploration was clearly articulated as well as the mechanism used by the organisation to balance the conflicting demands. This was evident in how they structured themselves around the tasks at hand during the implementation of their DTS. Although this result was as expected, ambidexterity still needed to be linked to the execution of the DTS implementation, because ambidexterity is the result of DT within an organisation according to Velu (2019), but not necessarily a known factor contributing to the implementation of the DTS (Weiser et al., 2020a). Tawse et al.(2019) argues that due to the ever-changing nature of business and the impact of technology advancements on business models, organisations who are able to implement their strategies effectively in the digital age has a clear competitive advantage. The successful implementation of the DTS is therefore pivotal.

The researcher found that a need for constant reconstruction of IT and business resources across a wide range of organisational functions were necessary in order for

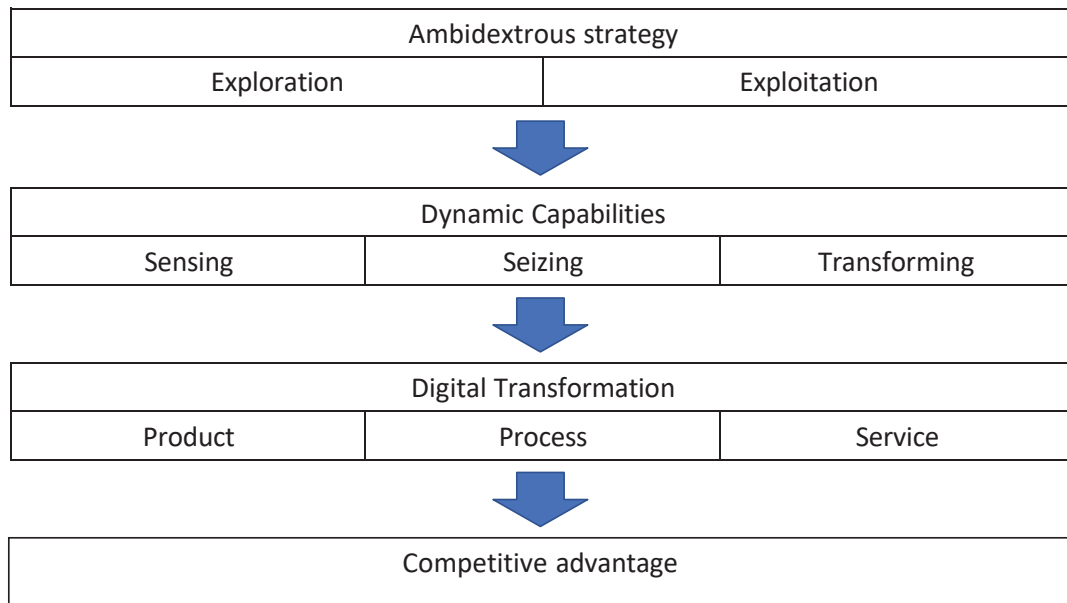
the senior leaders to execute their DT strategies. This is consistent with the body of knowledge presented by Yeow et al. (2018) that found that DT initiatives are inherently multi-functional. In support of this, Chantias (2017) argues that DTS is about the coordination, prioritization, governance and execution of the activities required to achieve the organisation's DT objectives and it introduces technologies such as big data, mobile and internet of thing (IoT) to achieve business improvement and to provide greater customer value. The researcher found that this creates incongruous challenges in the pre-digital organisations that are trying to balance their exploitative activities and explorative activities simultaneously. Notwithstanding, Birkinshaw et al. (2016) argues that ambidextrous organisations can respond to competitive forces such as emerging technologies and disruptive business models much better than their competitors, despite the fact that the combination of different organisational capabilities, hierarchies, and business routines gives rise to incongruous challenges. This study found that pre-digital organisations were involved in exploitative operations which focus on efficiencies, predictability, and stability as well as explorative operations which involve agility, reactivity, and innovation to various degrees. This is aligned to literature as Chantias et al. (2019) and Birkinshaw et al. (2016), determined that pre-digital organisations typically balance their time and resources between business-as-usual activities and innovation.

The majority of literature concentrate its attention on resolving this paradoxical tensions that arise due to the interplay of explorative activities and exploitative activities., Organisational ambidexterity is therefore seen as an advanced dynamic capability (Popadiuk et al., 2018; van Lieshout et al., 2021). As such, within the context of modern academic discourse, there are three distinct theoretical approaches that attempt to explain how businesses are able to achieve a competitive advantage: organisational ambidexterity, dynamic capabilities, and innovation (van Lieshout et al., 2021). In the context of DTS implementation, which if done successfully, could provide an organisation with a sustained competitive edge (Tawse et al., 2020). Organisational ambidexterity, dynamic capabilities and innovation should therefore form part of the framework for adaptive strategy implementation that links organisational ambidexterity to adaptive strategy implementation. This is aligned to literature where the conceptual views of digital innovation, ambidextrous organisations and dynamic capabilities, are integrated and linked in the conceptual model in figure 2 below as adopted from (van Lieshout et al., 2021).

**Figure 8**

*Conceptual Model Ambidexterity Source*





*Note:* This theoretical model was produced by van Lieshout in 2021 which summarises the interdependencies between organisational ambidexterity, dynamic capabilities, and digital innovation. From "The interrelatedness of organizational ambidexterity, dynamic capabilities and open innovation: a conceptual model towards a competitive advantage" by Van Lieshout J, Van Der Velden J, Peters P, *European Journal of Management* (2021) 26(23) 39-62.

The study found that various constructs of organisational ambidexterity were utilised by all participants who are in the process of implementing DT strategies. Although the focus of the study was on the views and perspectives of managers in the top management teams in pre-digital organisations about their respective areas of responsibility, it was evident that various constructs of ambidexterity was utilised in different areas across the same organisation whilst executing DT activities. This was as expected as there are marked differences in how ordinary capabilities which relates to business-as-usual or day-to-day operations and dynamic capabilities which refers to innovation and digital processes in the organisation are managed. This is aligned to literature as D. J. Teece et al. (2017) argues that ordinary capabilities can be standardised through industry best practises and continuous improvement, whereas dynamic capabilities rely on management cognition and the routines of the organisation to innovate, both of which are because of the culture of the organisation. This could explain the various constructs of ambidexterity employed within the same organisation. Different motivations for the existence of both can be found in literature. Despite the fact that dynamic capabilities are bolstered by routine and predictable processes (ordinary capabilities) in the organisation,

DJ. Teece (2018) argues that top management should place more emphasis on them because of the interdependencies between innovation and a sustainable competitive advantage. As a result, to successfully embed dynamic capabilities into a business, it is necessary to identify the resources and ordinary capabilities that will be impacted, despite the fact that distinguishing between ordinary and dynamic motivations for these capabilities may prove challenging (Laaksonen & Peltoniemi, 2018). However, organisations in the modern era need to invest in both dynamic (exploratory) and ordinary (exploitative) capabilities in order to perpetuate their competitive edge (Birkinshaw et al., 2016; Chakma et al., 2021a; Jansen et al., 2020). The balancing act between ordinary capabilities (exploitation) and dynamic capabilities (exploration) is made possible by using a specific construct of ambidexterity. Tarody (2016) found that to meet the competing needs for exploration and exploitation, ambidextrous organisations is known to be good at balancing conformity and flexibility by creating dual structures or an ambidextrous organisational framework.

Due to the various definitions of ambidexterity, the question of whether or not ambidexterity is real or just a reinterpretation of previous findings emerges. When asked why the challenge of balancing exploitative activities and explorative activities is so novel, the response is that neither the difficulty nor the solutions to the problem are new (Venugopal et al., 2019). Many academics portray exploitative and exploratory activities as opposite ends of a continuum. However, ambidexterity in itself indicates that trade-offs are unavoidable and leaders must use a range of structural, contextual, and leadership alternatives for resolving conflicts to the best of their ability (Koryak et al., 2018; Tarody, 2016).

Four key tensions-"differentiation vs. integration, individual vs. organisation, static vs. dynamic, and internal vs. external"-have emerged to summarise the current state of research on ambidexterity. (Tarody, 2016, p43). Differentiation or structural proponents contends that the only mechanism to achieving ambidexterity is to create distinct organisational units for exploration and exploitation. (Tarody, 2016). Integration, according to proponents of the contextual approach, helps establish an organisational setting in which workers can conduct explorative activities and exploitative activities simultaneously within the same team (Tarody, 2016). Structural ambidexterity and contextual ambidexterity is known to be the two most researched and used constructs of ambidexterity to date (Tarody, 2016). Due to this, the expectation was that if ambidexterity was practised by pre-digital organisation whilst implementing their DTS, that they would either employ structural or contextual ambidexterity.

The categories linked to the theme of ambidexterity will be discussed next.

#### *6.2.1.1 CONTEXTUAL AMBIDEXTERITY*

Instead of structural separation, the leading method for achieving ambidexterity is to provide contexts that enable individuals to participate in both explorative activities and exploitative activities (Tarody, 2016). This strategy eliminates coordination costs and allows organisation-wide adaption, but introduces new management challenges (Tarody, 2016). In addition to this, the contextual approach depends on organisational systems, customs and processes as the primary antecedents (Koryak et al., 2018). Despite discrepancies amongst the various perspectives of ambidexterity in literature, there is a mutual agreement that ambidextrous companies perform exceedingly well. Comprehensive empirical investigations proved the advantageous relationship between organisational ambidexterity and performance (Chakma et al., 2021a; Koryak et al., 2018; Popadiuk et al., 2018; Zimmermann et al., 2015)..

The study determined that contextual ambidexterity was used by pre-digital organisations in the implementation of the DTS. This finding was as expected as contextual ambidexterity refers to the behavioural capability to achieve both conformity and flexibility within the same area of business. Conformity results in congruence in all operational activities in the business area and flexibility is the capability to rapidly reinvent activities in the business in an attempt to cater for challenging demands in the organisational context (Amankwah-Amoah & Adomako, 2021; Balboni et al., 2019; Tarody, 2016).

It was found that the motive and application of contextual ambidexterity was different for each of the participants even though there was agreement amongst all participants that one team was used to perform both exploitative and explorative activities. Based on the discussions, there were varying levels of success in achieving full contextual ambidexterity as in certain instances the focus was on stability rather than innovation. This was consistent with research that found that the conflict between explorative activities and exploitative activities exists because the gains from explorative activities are uncertain, unpredictable, and unclear and that organisations are proven to prefer exploitation due to the higher certainty of its rewards (Hughes, 2018). Hughes (2018) argues that for organisation to be successful in adaptation, they must engage in both

exploitative activities and explorative activities. In the context of this study exploration seemed to be notoriously difficult.

The researcher found that in concept contextual ambidexterity had all the elements necessary to support the implementation of a DTS, but in practice it was difficult for the employees to balance the incongruous demands. In most cases the focus was on the maintenance of ordinary capabilities rather than the exploration of dynamic capabilities like innovation. Amankwah-Amoah & Adomako (2021) argues that even though the processes and systems of the incumbent business unit serve as the basis for contextual ambidexterity, every member of staff can demonstrate contextual ambidexterity by providing innovative solutions to customers they are responsible for, while also keeping an eye out for changes in the market. Jansen et al. (2020) contends that ambidexterity at the human level is a prerequisite for ambidexterity in organisations and that identifying the factors that foster ambidexterity at the individual level is a crucial first step in identifying the factors that foster ambidexterity in organisations. Amankwah-Amoah & Adomako, (2021) and Tarody (2016) concludes that although it may seem that contextual ambidexterity is executed on an individual level, it is actually the organisational context that enables individuals to be ambidextrous.

Based on literature both the organisational context and the individual's ability to be ambidextrous is important contributing factors in employing contextual ambidexterity successfully. Furthermore, it is evident that the construct of ambidexterity during the implementation of a DTS is best achieved through the development of systems and routines that leads to autonomy where staff members make decisions regarding where to allocate their attention in the midst of competing demands which includes the coordination, prioritization, governance and execution of the activities required to deliver unique and integrated business capabilities by using digital technologies (Chanas, 2017b; Sebastian Ina et al., 2017). According to Popadiuk et al.(2018) contextual ambidexterity can be defined as an advanced organisational capability as it refers to the staff members quest for alignment as well as adaptability.

#### *6.2.1.2 STRUCTURAL AMBIDEXTERITY*

The resulting tensions due to efforts to balance exploitative activities and explorative activities is resolved by structurally separating the activities across the organisation and

complementing it further with alliances, joint ventures and acquisitions (Jansen et al., 2020).

Contextual ambidexterity is very different from structural ambidexterity because the structural ambidexterity is achieved by separating explorative activities and exploitative activities into distinct structures whereas contextual ambidexterity provides a platform for staff members to make their own decisions of whether to spend their time on explorative activities or alternatively exploitative activities. (Amankwah-Amoah & Adomako, 2021; Balboni et al., 2019; Tarody, 2016).

The study found that structural ambidexterity was utilised in the implementation of the DTS in pre-digital organisations. According to Ubeda-Garc a et al., (2020), the structural differentiation of explorative activities and exploitative activities can help ambidextrous organisations maintain their distinct competencies. This in turn can lead to improved short- and long-term performance for businesses confronting a variety of strategic challenges (Ubeda-Garc a et al., 2020). Half of the senior managers indicated that they structurally separate elements of exploration through externalization. This is done through the outsourcing of parts of the DTS implementation to external service providers. This is consistent with the current body of knowledge, Duerr German et al., (2018) found that to remain competitive, it is necessary to be able to exchange resources with stakeholders and create strong relationships, as not every organisation possesses all necessary talents and competencies.

Structural ambidexterity is the most researched construct of ambidexterity, with scholars claiming that organisations require dual structures to support both exploitative and exploratory activity. (Tarba et al., 2020). This finding was therefore as expected because most historically IT related projects follow a dual structure during implementation, where project teams consisting of business, technology and leadership are created to implement specific systems or solutions(Matt et al., 2015). The difference with DT strategies is that it is multifaceted and usually linked to a variety of business strategies and affects the entire enterprise (Matt et al., 2015).

The structural separation of conflicting demands is consistent with the literature in organisational architectures, which emphasises the criticality of perpetuating coherence between organisational structural elements and organisational contexts, and it is also consistent with previous studies in strategy implementation. (Chakma et al., 2021a; Ubeda-Garc a et al., 2020). The study found that interviewees indicated that they utilise

structural ambidexterity to balance conflicting demands, was able to demonstrate how exploitation and exploration activities was done by separate teams. They were able to demonstrate how these teams operate, deal with innovation, continuous improvement and the participation of top management in the processes of their DTS implementation.

Structural ambidexterity is not a rudimentary organisational design for exploring and exploiting trade-offs because distinct capabilities must be instituted, perpetuated and bound together in alignment with the overall organisational strategy (Chakma et al., 2021a; Tarba et al., 2020; Ubeda-Garc a et al., 2020; Zimmermann et al., 2015). Each unit is autonomous, yet they are interdependent, and building the essential coordinating mechanism is a matter of leadership rather than structure. The utilisation of separate teams with clear processes for digital activity coordination, prioritisation and execution, will therefore allow the organisation to capitalise on product and customer-focused opportunities created by emerging digital technologies (Matt et al., 2015; Popadiuk et al., 2018).

When implementing an adaptive strategies like digital transformation, the greatest difficulty executives face is balancing the exploration of innovative solutions and capitalising on existing capabilities. Different organisational learning capacities and competing market and regulatory pressures serve as the inspiration and motivation for explorative activities and exploitative activities, respectively (Koryak et al., 2018; Weiser et al., 2020a). Structural ambidexterity enables simultaneous explorative activities and exploitative activities through connected but separate units or persons with a distinct focus on either exploration or exploitation (Hughes, 2018). This is in direct contrast to contextual ambidexterity that advocates a trade-off between exploitative activities and explorative activities. With structural ambidexterity, there are no trade-offs. The organisation is structured in a way that two distinct teams or sub-units focus primarily on either exploitation or exploration. Historically, scholars suggested that organisations concentrate on either exploration or exploitation in an effort to avert failure (Koryak et al., 2018). This is not possible in the current business context of pre-digital organisations.

Lopes et al. (2019) argue that two distinct approaches help businesses gain a competitive advantage: the short-term approach stresses the importance of constantly innovating products, service offerings, and ecosystems to adjust to the ever-changing conditions (exploration), while the long-term approach emphasises the importance of laying the groundwork for long-term success by building ordinary capabilities (exploitation). This implies that organisations have to simultaneously focus on

continuous value creation through product and the innovation of business models and the building of ordinary capabilities for the longer term (Lopes et al., 2019).

Ordinary capabilities can be standardised through best practises on an industry level whereas dynamic capabilities relies on management cognition as well as the organisational routines which are influenced by the organisational customs and traditions or culture (D. J. Teece et al., 2017). DJ. Teece ( 2018) contends that TMT must prioritise dynamic capabilities since they are intimately linked to innovative solutions and a sustainable competitive advantage, despite the fact that routine and predictable processes (ordinary capabilities) in the business strengthen dynamic capabilities.

This research study concludes that in order to implement an adaptive strategy successfully and to obtain a sustained competitive advantage in the digital age, organisations must concentrate on both their ordinary (exploitative) and dynamic (exploratory) capabilities simultaneously.

## **6.2.2 SUMMARY OF DISCUSSION FOR RESEARCH QUESTION 1**

The study concludes that a link or relationship exists between organisational ambidexterity and adaptive strategy implementation. This is evident through the constructs of ambidexterity utilised by pre-digital organisations in the implementation of their DTS. Contextual and structural ambidexterity were the two constructs of ambidexterity that provided the organisations with the capability to perform both exploitative and explorative activities during the implementation of their strategy.

Contextual ambidexterity was difficult to sustain as teams were prone to focus on exploitative activities which is closely related to their operational or ordinary capabilities. It was noted that in order for contextual ambidexterity to function optimally, ambidexterity on an individual level needed to be implemented first, notwithstanding that individual ambidexterity is enabled by an organisational setting and context that enables ambidexterity on the individual level. The researcher did not explore individual ambidexterity and the organisational context to determine whether this construct of ambidexterity was positively linked to the execution of the DTS.

Structural ambidexterity was found to be more prevalent in this study. The structural divide between exploitation and exploration provided these organisation with the focus

required to perform optimally in each context. Different skills and experience is required to perform the various exploitation and exploration activities during the implementation of the DTS, it therefore makes sense for these organisations form structural divide to balance exploitative activities and explorative activities. Half of the organisations who utilised structural ambidexterity, utilised external service providers in their model. They outsourced activities which they did not have the skills and expertise in, to partners. This further confirms the relationship between ambidexterity and the execution of an adaptive strategy like digital transformation.

## **6.3 DISCUSSION OF RESULTS FOR RESEARCH QUESTION 2**

### **Research Question 2: Identify the factors that contributed to the selection of the construct of ambidexterity**

Exploitation and exploration requires distinctive capabilities, structures processes and strategies and therefore has a paradoxical relationship (Koryak et al., 2018). Koryak et al., (2018) argues that even though these two mutually reinforcing components of ambidexterity complement each other during the execution of a strategy, they cause constant organisational tensions which are difficult to resolve. He recommends that the incumbent tensions be resolved using integrative or differentiating approaches. The integrative and differentiating approach differs in it that that the integrative approach relies on the interdependencies and coordination of the paradoxical activities whereas the differentiating approach relies on a distinct choice between conflicting activities (Koryak et al., 2018).

Research question 2 aimed to identify the factors that influenced the selection of a specific construct of ambidexterity during the implementation of a DTS. The insights into these factors provided an understanding of the context from which the constructs originated. The discussion of the themes that emerged in relation to the factors that influenced the selection of the constructs of ambidexterity during the implementation of a DTS follows in this section.

#### **6.3.1 DIGITAL TRANSFORMATION**

When an organisation investigates and capitalises on the potential of emerging digital technologies, it often has to make fundamental changes to the way it does business,



changes that affect not only the products and services it offers but also its management practises and its very structure (Matt et al., 2015; Ritala et al., 2021). This study found that It is the impact of DT on the organisation as a whole that ultimately determines how the concept of ambidexterity will play out in the course of putting a digital strategy into action.

It is widely known that socio-technical transformations like digitilisation impacts a wide variety entities (Ritala et al., 2021). For this reason, businesses are increasingly including DT elements into their strategies and plans (Ritala et al., 2021). This usually necessitates changes to fundamental operational procedures, which in turn affects products, processes, architectures and leadership practices (Matt et al., 2015). As a result, DT has far-reaching consequences for the entire organisation and across departments, fostering a new kind of organisational ambidexterity (Vial, 2019b).

To be competitive in the digital age, organisations is obliged to perform their current activities flawlessly (Sebastian Ina et al., 2017). To accomplish this, they require ordinary capabilities that are robust and scalable(Sebastian Ina et al., 2017). This operational backbone that is created by ordinary capabilities, promotes operational excellence and efficiencies, whereas the new digital capabilities support business agility and innovation(Sebastian Ina et al., 2017). Both ordinary and digital capabilities are dependent on technologies, but what gives it the edge is the inherent capabilities that digitisation invokes (Sebastian Ina et al., 2017). Even though many pre-digital organisations have been building their operational backbone for many years, research has proven that their ordinary capabilities do not support their digital strategies (Sebastian Ina et al., 2017).

According to Berghaus & Back (2016), it is critical for the top management teams of pre-digital organisations to have thorough knowledge and understanding of their current business model, a distinct picture of their desired future state, and a plan to get there. To secure success,, pre-digital organisations have to incorporate digitalisation into their existing capabilities to enhance routines engage talent, and drive new business models(Schwertner, 2017). Organisational change occurs when the organisation is able to achieve their digitalisation objectives (Schwertner, 2017).

#### *6.3.1.1 CLEARLY DEFINED DTS*

The research study found that the existence of a DTS had a direct influence on the construct of ambidexterity that was selected. This was an important finding, as it provides the researcher with further confirmation that organisational ambidexterity is directly linked to the implementation of adaptive strategies like digital transformation. Schwertner (2017) contends that, in order for DT to be successful, it is necessary to provide equal attention to organisational change, technology, and integration. It is for this reason that digital strategies are multifaceted and should be linked to a variety of business strategies as they affect the entire enterprise (Matt et al., 2015).

It was evident that the existence of a clearly defined and documented DTS or a business strategy that included DTS elements, provided the organisation with a clear vision and allowed them to determine how they are going to achieve their digital objectives. This is supported by literature that has found that strategies are no longer merely a collection of agreed-upon plans, but are continuously modified by organisational routines and administrative processes, which support the organisation's resource allocation process (Weiser et al., 2020a). Matt et al. (2015) contends that when digital strategies are constructed, many perspectives and objectives are considered. They typically offer a business-first approach and consider how technological improvements may affect the products, operations and structures of the organisations (Matt et al., 2015). These strategies are known to be more inclusive as it includes digital activities that occur at a customer level as well as digital activities that occur at an operational level (Matt et al., 2015). It is imperative that organisational strategies complement each other. This explains why the existence of a clearly defined and documented DTS influenced the construct of ambidexterity that was selected. The researcher did not examine or explore the contents of the DTS to determine the comprehensiveness of the document.

Similarly, the organisations who did not have a clearly defined and documented DTS, indicated that the lack of the strategy also influenced how they organized themselves around their work in a quest to achieve their digital objectives. These organisations were primarily focussed on executing an IT strategy with digital elements which had no bearing on the wider organisational change that needed to be invoked. This is in alignment with Matt et al. (2015), who found that IT strategies are usually focused on managing an organisation's IT infrastructure, which has little impact on the rate at which the organisation expands and innovates. Matt et al. (2015) argues that IT strategies frequently encapsulate an organisation's current and predicted future activities, application systems, infrastructure, and organisational and financial framework in order to deliver IT services. This makes it difficult for the business to capitalise on product- or

customer-focused innovations made possible by digital technologies, which frequently reach encompass the boundaries of individual enterprise. However, information technology strategies, from a systemic standpoint, define the path for an organisation's future use of technology, while they may not account for changes to products, services, processes, and organisational structures that precede technological integration (Matt et al., 2015). This means that the construct of ambidexterity that was selected was in attempt to institute a digitalisation foundation.

The researcher further attempted to understand the link between the clearly defined DTS and the specific construct of ambidexterity that was selected. The majority of organisations who have indicated that they have a clearly defined DTS selected structural ambidexterity as the construct of ambidexterity. Structural ambidexterity refers to the creation of separate teams to perform exploitation and exploration activities respectively. There was one anomaly where the organisation utilised contextual ambidexterity. Upon further discussions, it was clear that the strategy that the organisation was implementing was primarily an IT strategy.

Notwithstanding, Weiser et al. (2020a) contends that regardless of how eloquently a strategy is articulated, it is ultimately moulded by those who implement it by utilising the inherent capabilities of the organisation, which are encapsulated in its roles, hierarchies, structures, processes, and routines. The researcher found that regardless of the existence or non-existence of a clearly defined DTS, the organisations were still able to execute their digital plans due to their ability to use their ordinary and dynamic capabilities. This is aligned to literature that states that it is the shaping, building and enhancement of an organisations ordinary and dynamic capabilities in favour of current and future demands that ultimately helps it implements its strategy. This also cements the fact that strategies are no longer just a set of agreed upon plans, but are being continuously shaped by organisational routines and administrative processes which specifically underpins the resource allocation process within the organisation(Weiser et al., 2020a). This research study have found that although there is a clearly defined and documented DTS, the organisation has created platforms that allows the teams involved in exploration activities to follow pre-set processes that allows them to present new ideas, secure funding to solve immediate challenges and take advantage of new opportunities. This is aligned to the adaptive approach to strategy implementation (Weiser et al., 2020a; Zhao et al., 2021).

### 6.3.2 INNOVATION

The research study found that the method of innovation influenced the construct of organisational ambidexterity that was selected. This was as expected as DT and innovation are interchangeable in the current market context. This is supported by literature that argues digitalization through the combination of different technologies (cloud, big data, IoT, AI) assist organisations to innovate (Rachinger et al., 2019). As a result, these innovations creates different types of collaboration between businesses as well as altered relationships with clients and employees.

According to Tarody, (2016), exploration is related to organic structures, distributed systems, innovation, improvisation, autonomy, chaos, market expansion and technologies whereas exploitation is characterised by inflexibility, routine and red tape. In the current business context a strong operational capability and a digital platform is required to achieve both the exploitative and exploratory objectives (Sebastian Ina et al., 2017). The organisation constantly have to choose between jointly desirable but competing exploitative and explorative objectives , even when the gains on explorative strategies are uncertain and less tangible (Berghaus& Back, 2016; Tawse et al., 2019; Zimmermann et al., 2015;Tarody, 2016).

Lopes et al.(2019) argues that innovation is the conduit that can help organisations achieve shorter product-lifecycles and a sustainable competitive advantage. When organisations leverage their existing competencies to maintain and optimize their products and services and achieve operational efficiencies in doing so, they are exploiting their ordinary capabilities. In contrast, when these organisations are creating new competencies to develop new products and services through innovative processes, they are using their dynamic capabilities for exploration

(Amankwah-Amoah & Adomako, 2021; Andriopoulos & Lewis, 2009) argues that organisations need both exploitative and explorative innovation to thrive even though conflicts arise from their dissimilar approaches to knowledge management. Exploitation is known to refine and expand existing knowledge in the pursuit of higher efficiency and improvements that results in incremental innovation. However, exploration requires the creation of new knowledge by means of trial and error to encourage the creation of novel ideas which are essential to ground-breaking innovation(Amankwah-Amoah & Adomako, 2021). Kane et al.(2017 and Vial (2019a) found that it is the ability to modify existing management practices in order to experiment test and incorporate the lessons learned

that prepares organisations to try out cutting-edge technologies, take calculated risks, and successfully navigate the volatile landscape of the digital age. It is this capacity to utilise existing skills and explore new domains with equal dexterity that is an indication of organisational ambidexterity, which in turn indicates an organisation's skill at managing these conflicts (Amankwah-Amoah & Adomako, 2021).

Participants in the study indicated that the method of innovation influenced the construct of ambidexterity selected during the implementation of their DTS. The method of innovation referred to the bottom-up or top-down method of innovation.

#### *6.3.2.1 METHOD OF INNOVATION*

The research study found that bottom-up approaches to innovation was followed by most of the organisations that formed part of the study. The link between innovation and adaptive strategy implementation was evident in how the organisation structured themselves around the bottom-up innovation process. This was a shift from the original structural control approach, which held that strategies are executed from the top down, to the idea that organisational strategies are affected from the bottom up (Weiser et al., 2020a).

The research study further found that even though innovation is an essential in the implementation of a DTS, it is a complex managerial responsibility due to the complex innovation processes of discovering and utilising capabilities and prospects to develop or improve customer solutions (Schoemaker et al., 2018). The pressure on top management teams to perfect the method of innovation within their organisation is critical as in order to thrive in the current business context, organisations need to win at both exploitative innovation and explorative innovation notwithstanding the disparate knowledge management systems (Schoemaker et al., 2018). The choice of the construct of organisational ambidexterity to manage the conflicting demands of exploitation and exploration becomes pivotal. It is for this reason that historically, literature on the theories of ambidexterity propose the use of separate structures to assist with the differentiation between exploitative and exploratory innovation and in contrast, contextual ambidexterity which emphasises the behavioural and social strategies to combine exploitative and exploratory activities (Popadiuk et al., 2018; van Lieshout et al., 2021; Venugopal et al., 2019)

It was found that the method of innovation was influenced by the focus of the organisation. The organisations that focussed on the enhancement of their ordinary capabilities, did not utilise innovation processes extensively in the implementation of their DT strategies. This is supported by (Rachinger et al., 2019) who argues that a company's innovative capacity and business strategy depend critically on its ability to adapt, using its dynamic capabilities .

### **6.3.3 RESOURCES ALLOCATION**

The research study found that the allocation of resources like funding influenced the construct of ambidexterity that was selected during the execution of the DTS.

Weiser et al. (2020a) contends that routines and administrative processes within an organisation, particularly those that underpin the allocation of resources, are continuously shaping strategies. It is generally agreed that no matter how well a strategy is articulated, it is moulded by the resources who put it into action by drawing on the organisation's innate strengths as encapsulated in its roles, hierarchies, structures, processes, and routines. It is therefore expected that how resources are allocated would influence the selection of the construct of ambidexterity by pre-digital organisations who are implementing their DTS.

Capabilities in managing the organisation's resources are essential if it is to attain high performance in an ever-evolving environment (Weritz & Braojos, 2020). These abilities include organisational resources, competencies and both internal and external skills (Weritz & Braojos, 2020). In addition to this, capabilities, which consists of exploration routines to acquire and apply learnings and developing solutions and more capabilities. (Weritz & Braojos, 2020). D. J. Teece et al. (2017) and ;Wan et al., (2017) argues that identifying current and future needs of stakeholders, continuous improvement of existing processes, enhanced or new products and services and continuous employee learning and development initiatives are organisational perspectives contributing to a sustainable competitive advantage.

Researchers agrees that the function of dynamic capabilities is to restructure an organisation's resource base in an attempt to create a new configuration of resources, consistent with the organisation's strategic vision (Kump et al., 2019).

#### 6.3.3.1 FUNDING

This research study found that funding was singled out as an impactful contributing factor influencing the selection of a specific construct of ambidexterity. Participants indicated that the limited funding to support implementation of the DTS forced them to select contextual ambidexterity as a construct which meant that the same team was responsible for both explorative and exploitative activities. The lack of funding also translated into a lack of staff members to assist with the balancing of the conflicting demands of exploitative activities and explorative activities. These organisations or teams ended up focussing primarily on stability of their ordinary capabilities rather than innovation. This was supported by literature that indicated that pre-digital organisations end up in the success trap of focussing on ordinary capabilities as it is aligned to their skills and available resources (Lopes et al., 2019).

Organisations who indicated that adequate funding was allocated to their DT program, selected structural ambidexterity as the construct of ambidexterity. A link was found between adequate resource allocation and structural ambidexterity.

#### 6.3.4 WORKFORCE

The research study found that the organisational culture, skills and capacity influenced the construct of ambidexterity that was selected during the implementation of the DTS. DT has become one of the most significant challenges facing enterprises in the digital age (Ebert & Duarte, 2018; Rachinger et al., 2019; Saarikko et al., 2020). The necessity of leveraging digitalisation compels organisations to examine their current context in order to determine which digitalisation strategy to implement within their business (Rachinger et al., 2019; Saarikko et al., 2020). More often than not, these dramatic changes necessitate that businesses reassess long-held beliefs and processes in order to design strategies that walk the line between exploitation and exploration (Saarikko et al., 2020).

Contrasting demands experienced within organisations during the implementation of their digital strategies has a disruptive impact on operations (Warner & Wager, 2019). Senior, middle and lower level leadership and their teams need multiple skillsets and capabilities to balance the contrasting demands of stability and agility (Warner & Wager, 2019). Velu, (2019) argues that organisations need different capabilities to unravel the

paradox of managing their existing capabilities and disruptive capabilities at the same time. These organisational capabilities typically operate on two levels, the operational level, which focus on the efficient execution of activities (ordinary capabilities), and the micro foundation and higher order capabilities (dynamic capabilities), which focus on the building of new capabilities or the reorganisation of the current ones (D. J. Teece, 2018). Even though ordinary capabilities can secure a competitive advantage, it is not able to sustain the competitive advantage over an extended period of time (Warner & Wager, 2019). The key challenge that leaders experience during the implementation of an adaptive strategy like digital transformation, is the balancing of explorative activities and exploitative activities within the organisation (Weiser et al., 2020a). The conundrum is that exploration and exploitation originates from diverse organisational learning capabilities and is driven by contradictory market and regulatory forces (Koryak et al., 2018; Weiser et al., 2020a).

#### *6.3.4.1 CULTURE*

When leveraging new digital technologies to develop and implement new business capabilities develop innovative solutions and revisits operational routines, organisations are compelled to re-evaluate their current context in order to determine the relevancy of technologies and the mechanisms that will be used to implement them. This is supported by D. Teece et al. (2016 and D. J. Teece et al. (2017) that found that when dynamic capabilities are strong in an organisation, the organisation is able to allocate their resources for the new strategy in alignment with the environment it operates in, its inherent capabilities and culture. Further to this, the study found that considerations to organisational change and culture change are critical for the implementation of an adaptive strategy like digital transformation. This is aligned to findings by Yeow et al. (2018), that argues that organisational culture must be changed or enhanced to accommodate DT and at the same time achieve its adaptive strategy implementation objectives.

It was evident in the research study that the buy-in required from employees throughout the organisation for the DTS to be successfully implemented was critical. Employees who were working within the pre-digital organisation for a long time was resistant to change. These employees had the institutional knowledge that was required to build new products and services but also had the responsibility to keep the existing or more traditional business operational. In support of this, Schwertner (2017) argues that



integrating digitalisation into all aspects of business, results in transformation. This fuels the resistance to the DTS implementation from incumbents in the pre-digital organisation.

Participants highlighted that organisational culture is something that they still grapple with, and they therefore had to find mechanisms to still achieve their organisational objectives. This is supported by literature where Weritz & Braojos (2020) found that even though a lot of research has been done on the topic of how culture affects the acceptance of digitization, research into the significance of digital culture in reaching a state of digital maturity is still in its infancy. Further to this, scholars concur that ambidexterity is a very complex solution to implement and maintain due to the interconnectedness of business (Weritz & Braojos, 2020).

Schwertner (2017) believes it is imperative that leaders in pre-digital organisations manage organisational change effectively, resulting in a return on investment Duerr German et al. (2018 and Weritz & Braojos (2020) further argues that culture may be a major and deciding factor in the success or failure in the implementation of its DTS(Weritz & Braojos, 2020). The three main cultural values that are critical for DT externally oriented culture, internally oriented culture and flexibility and adaptability. Organisations implementing their DT believed that a lack of flexibility and adaptability by employees negatively influenced their ability to move at the pace that is required to survive in the current business context.

It is imperative that organisations reconsider their culture to be able to maximise their investment in the implementation of their DTS.

#### *6.3.4.2 SKILLS AND CAPACITY*

The research study found that skills and capacity was an influencing factor in the selection of the construct of ambidexterity. Skills and capabilities is another determinant in the success of the a digital transformation strategy implementation (Ritala et al., 2021). The contrasting demands experienced within organisations during the implementation of their digital strategies has a disruptive impact on operations (Warner & Wager, 2019). The study found that the leadership within the organisation and their teams need multiple skillsets and capabilities to balance the contrasting demands. This is supported by Velu (2019) who argues that organisations need different capabilities to unravel the paradox of managing an existing business and a disruptive business simultaneously.

When an organisation promotes a culture of continuous learning and development, they foster an atmosphere where workers are encouraged to acquire and apply new digital skills while also engaging in open dialogue and sharing of ideas (Kane et al., 2017). Having a work setting that encourages and facilitates employees' growth is crucial (Vial, 2019a). Findings in the research study done by Weritz & Braojos (2020) believes that a learning and development environment makes it possible for employees to practice their new skillsets whilst implementing adaptive strategies like digital transformation. Vial (2019a) argues that to reach full digital maturity, a system of ethics and data governance must be established. Organisational goals and actions must align with the ethics, safety, and privacy standards of all affected parties.

The research found that a significant challenge experienced by the participants was the unwillingness of both leaders and employees to experiment with alternate structures in the implementation of their DTS. Van et al. (2021) contends that the source of this tension could be because managers in pre-digital organisations are likely to favour established ways of work that achieved great performance historically. In addition to this, pre-digital managers tend to utilise practices to protect the 'old ways of work' (Van et al., 2021; Warner & Wager, 2019).

The research study confirms that pre-digital organisations are faced with the challenges surrounding skills, capabilities and capacity. Warner & Wager (2019) believes that the challenge of reconciling their present performance with new learning, is a substantial obstacle to the adaption of business models enabled by digital technologies within pre-digital organisations. Further to this, the capacity or the number of employees available to work on DT initiatives were also highlighted as a factor that influenced the selection of the construct of ambidexterity.

When organisations utilize their dynamic capabilities in order to implement an adaptive strategy like digital transformation, they typically determine what resources will be needed to respond to changes and opportunities, they then single out the most critical skills before aligning these resources with the strategy (Teece D, 1997). The participants found that having the correct skills and capacities impact the delivery of their DTS.

### **6.3.5 SUMMARY OF DISCUSSION FOR RESEARCH QUESTION 2**

The research study concluded that digital transformation, innovation, resource allocation and workforce were factors that influenced the constructs of ambidexterity selected during the implementation of the DTS. The existence of a clearly defined DTS provide organisations with context on how to organize themselves to be able to execute the DTS successfully. This had a marked influence on the construct of ambidexterity selected as they were able to clearly understand the vision of the organisation and the mechanisms they have to their disposal to achieve the strategic objectives. It was found that organisations with a clear and documented DTS selected structural ambidexterity which refers to the structural divide between exploitative and explorative activities. This is supported by literature that has found that strategies are no longer merely a collection of agreed-upon plans, but are continuously modified by organisational routines and administrative processes, which support the organisation's resource allocation process (Weiser et al., 2020a). Schwertner (2017) contends that, in order for DT to be successful, it is necessary to provide equal attention to organisational change, technology, and integration. It is for this reason that digital strategies are multifaceted and should be linked to a variety business strategies as they affect the entire organisation (Matt et al., 2015). (Matt et al., 2015) contends that having a business-first approach and then considering how technological improvements may affect the products, operations and structures of the organisations means that strategies are more inclusive as it includes digital activities that occur at a customer level as well as digital activities that occurs at an operational level. This study found that it is imperative that all organisational strategies complement each other. This explains why the existence of a clearly defined and documented DTS influenced the construct of ambidexterity that was selected.

DT and innovation are interchangeable in the current market context. This is supported by literature that argues that digitalization through the combination of different technologies (cloud, big data, IoT, AI) creates innovative solutions (Rachinger et al., 2019). As a result, these innovations creates different types of collaboration between businesses as well as altered relationships with clients and employees. It is this capacity to utilise existing skills and explore new domains with equal dexterity that is an indication of organisational ambidexterity, which in turn indicates an organisation's skill at managing these conflicts (Amankwah-Amoah & Adomako, 2021). The research study found that bottom-up approaches to innovation was followed by most of the organisations that formed part of the study. The relationship between innovation and adaptive strategy implementation was evident in how the organisation structured themselves around the bottom-up innovation process. This was a shift from the original structural control

approach, which held that strategies are executed from the top down, to the idea that organisational strategies are affected from the bottom up (Weiser et al., 2020a).

This research study found that funding was highlighted as a major contributing factor that influenced the selection of a specific construct of ambidexterity. Participants indicated that the lack of adequate funding to support the implementation of the DTS forced them to select contextual ambidexterity as a construct which meant that the same team was responsible for both explorative and exploitative activities. The lack of funding also translated into a lack of staff members to balance the conflicting demands of exploitation and exploration.

This research study found that funding was highlighted as a major contributing factor that influenced the selection of a specific construct of ambidexterity. Participants indicated that the lack of adequate funding to support the implementation of the DTS forced them to select contextual ambidexterity as a construct which meant that the same team was responsible for both explorative and exploitative activities. The lack of funding also translated into a lack of staff members to balance the conflicting demands of exploitative activities and explorative activities.

## **6.4 CONCLUSION**

This chapter presented the results obtained through the data analysis process. The study found that organisational ambidexterity can be positively linked to the implementation of a DTS. In addition to this, senior managers in pre-digital organisations utilise structural and contextual ambidexterity in the execution of their DT strategy. The factors that contributed to the selection of the constructs are listed below:

- Digital transformation
- Innovation
- Resource Allocation and
- Workforce.

The results were integrated to develop a practical framework that explains the phenomenon.

## **7 CHAPTER 7 - CONCLUSION**

### **7.1 INTRODUCTION**

With the majority of DT projects failing to meet their objectives and enormous amounts of money wasted over the last few years in an attempt to digitally transform pre-digital organisations, this study sought to explore the constructs of ambidexterity selected during the implementation of a DTS in an attempt to link organisational ambidexterity to the implementation of adaptive strategies. DT has become one of the most significant challenges facing enterprises in the digital age (Ebert & Duarte, 2018; Rachinger et al., 2019; Saarikko et al., 2020). The necessity of leveraging digitalisation technologies to innovate compels organisations to examine their current context to determine the technologies required to create their new context (Rachinger et al., 2019; Saarikko et al., 2020).

The emergent research on adaptive strategy implementation has contributed to a renaissance in the advancement of strategy implementation, however it has caused fragmentation due to the diverse theories underpinning the various perspectives (Weiser et al., 2020a). Weiser et al. (2020) proposed the use of an integrated view of strategy implementation, combining the traditional structural approach and the emergent adaptive approach, effectively marrying the old with the new. This gives rise to a coordination problem where the integration of socially constructed and diverse perspectives and actions of employees across the organisation into a coherent pattern of execution is complicated (Weiser et al., 2020a).

The key challenge that leaders experience during the implementation of an adaptive strategy like digital transformation, is determining the mechanisms required to effectuate both explorative activities and exploitative activities within the organisation (Weiser et al., 2020a). Exploration and exploitation originates from diverse organisational learning capabilities and is driven by contradictory market and regulatory forces (Koryak et al., 2018; Weiser et al., 2020a). To date, literature on organisational ambidexterity primarily focus on how businesses balance their incongruous demands with specific attention given to the drivers of organisational ambidexterity and how human resource systems, senior leadership team attributes, contextual elements and organisational structures contributes to the attempt at ambidexterity (Jansen et al., 2020). Dynamic capabilities and ambidexterity theories influenced strategic management discourse that focus on

how organisations are able to balance conflicting demands but has never been directly linked to adaptive strategy implementation (Popadiuk et al., 2018; Weiser et al., 2020a). This study further sought to contribute towards an integrated framework for adaptive strategy implementation by exploring the constructs of organisational ambidexterity selected, as well as the factors that influences the selection of a specific construct during the implementation of an adaptive strategy like DT using the dynamic capabilities framework as a foundation.

Studies in the field of organisational ambidexterity examines how the coordination problem that exists between the building of efficiencies and the achievement of adaptation could be resolved through structural or contextual separation (Weiser et al., 2020a). Organisational ambidexterity, is the capacity of the enterprise to balance current or traditional demands whilst being adaptable in a dynamic environment (Koryak et al., 2018).

As leaders of pre-digital organisations recognise the opportunity to merge existing ordinary capabilities with different dynamic capabilities enabled by digitization, they are creating their organisations digitalisations strategy (Sebastian Ina et al., 2017). These strategies take advantage of the digital economy and its ensuing benefits for business, rather than merely focussing on the technologies itself (Sebastian Ina et al., 2017). Although this study wish not to minimise the significance of developing effective strategies, research has proven that organisations generally find it challenging to implement their digital strategies effectively(Sebastian Ina et al., 2017; Weiser et al.,

This section expand on the findings of the study and discusses how they fit into a theoretical framework in to understand the phenomena of the link between organisational ambidexterity and the implementation of an adaptive strategy such as digital transformation. This is followed by a discussion of the relevance of this study to academia and provides recommendations for senior leaders in pre-digital organisations. Discussion of the study's limitations and recommendations for future investigation round out this chapter.

The research study found that organisational ambidexterity can be linked to the implementation of adaptive strategies.

## **7.2 ORGANISATIONAL AMBIDEXTERITY CONSTRUCTS DURING THE IMPLEMENTATION OF A DTS**

This study found that constructs of ambidexterity was utilised by business units of pre-digital organisations to assist them in implementing their DT strategies.

The research study found that a specific construct of ambidexterity was selected to assist the team or the organisation to balance their business-as-usual (exploitative) activities and their DT(explorative) activities. Structural ambidexterity was utilised where two separate teams was created to perform exploitative and explorative tasks. Exploitative tasks focussed primarily on the creation of stability and continuous improvement of ordinary capabilities. The team members involved in these tasks were older employees with many years of experience in the organisation and institutional knowledge that provided them with the skills and expertise to introduce incremental innovation. Explorative tasks focussed on the embedment of innovative products and services whilst implementing digital technologies. The skillsets required to effectuate these innovations was not always present in the organisation and externalization was used. Externalization refers to the use of an outsourcing model where external service providers assist the organisations with the implementation of the strategy.

Contextual ambidexterity was used where the same team was responsible for both exploitative and explorative activities. The teams had the responsibility to look after the business-as-usual (ordinary capabilities) activities as well as create new products and services through explorative activities. It was found that the teams struggled to balance the exploitative and explorative activities due to capacity and the importance of keeping the existing business profitable. Exploratory activities are always uncertain as there is no guarantee that the innovation will yield the expected results. Risk averse organisations prefer to focus on the exploitative activities because there is less uncertainty and their key performance metrics are usually linked to their ordinary capabilities.

The study found that where there was top management involvement and the selected structure of ambidexterity was mandated by top management, structural ambidexterity was selected. Where a more organic approach to the implementation of the DTS was used, contextual ambidexterity was selected.

### **7.3 FACTORS THAT INFLUENCE THE SELECTION OF A CONSTRUCT OF AMBIDEXTERITY**

The research study found that digital transformation, innovation, resource allocation and workforce were factors that influenced the constructs of ambidexterity selected during the execution of the DTS.

Existence of a clearly defined DTS provide organisations with context on how to organize themselves to be able to execute the DTS successfully. This had a marked influence on the construct of ambidexterity selected as they were able to distinctly comprehend the intended vision of the organisation and the mechanisms they have to their disposal to achieve the strategic objectives. It was found that organisations with a clear and documented DTS selected structural ambidexterity which refers to the structural divide between exploitative and explorative activities. This study found that it is imperative that all organisational strategies complement each other. This explains why the existence of a clearly defined and documented DTS influenced the construct of ambidexterity that was selected.

The method of innovation was indicated as a factor that influenced the selection of the construct of ambidexterity within the organisations. The research study found that bottom-up approaches to innovation was followed by most of the organisations that formed part of the study. The link between innovation and adaptive strategy execution was evident in how the organisation structured themselves around the bottom-up innovation process. This was a shift from the original structural control approach, which held that strategies are executed from the top down, to the idea that organisational strategies are affected from the bottom up. The organisational innovation processes and how resources were allocated was also influenced by the method of innovation.

This research study found that funding was perceived to be a significant contributing factor that influenced the selection of a specific construct of ambidexterity. Participants indicated that the lack of adequate funding to sustain the implementation of the DTS forced them to select contextual ambidexterity as a construct which meant that the same team was responsible for both explorative and exploitative activities. The lack of funding also translated into a lack of staff members to manage conflicting demands of exploitative activities and explorative activities. It was noted that the senior leaders who indicated



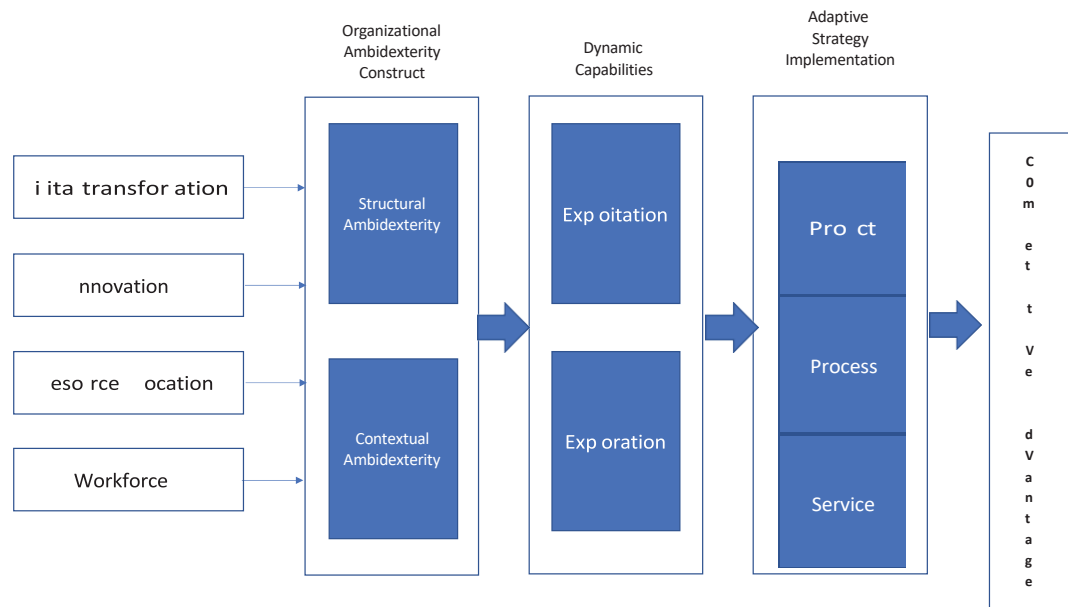
that they were using contextual ambidexterity also indicated the lack of a clear and documented DTS. Further to this, they ended up focusing on exploitative activities using incremental innovation to continuously improve their ordinary capabilities. They also lacked the direction and support from top management to innovate.

The study found that the lack of the change of the organisational culture within pre-digital organisations whilst implementing a DTS was a deterrent to the successful execution of the strategic vision. Both managers and staff members struggled to adjust to the alternate ways-of-work. Older individuals with institutional knowledge was resistant to change. Managers focussed on exploitative activities instead of explorative activities as their key performance indicators are linked to those. Some of the organisations was noted to be risk averse and therefore struggled to embrace a culture of innovation. This had an impact on the construct of ambidexterity selected and how the teams within the organisation organized themselves around this. Skills and capacity of employees was highlighted as a factor that influenced the selection of the construct of ambidexterity by all participants of the study. DT requires completely different skillsets. Pre-digital organisations are still structured around their traditional business models and do not have the skills to implement an adaptive strategy like digital transformation. Due to their focus on business-as-usual (exploitative) activities, they lack capacity to work on explorative activities. This poses a risk to the successful implementation of the DTS. As a result, some of the organisation selected structural ambidexterity where distinct teams work on either exploitative or explorative activities. This solve the problem of both skills and capacity.

The results to the research problem stated in the first chapter are summarized in Figure 9 below. The research study found that the relations between organisational ambidexterity and the implementation of an adaptive strategy are moderated by factors related to digital transformation, innovation, resource allocation and the workforce. The study found that these factors influenced the selection of the specific construct of ambidexterity which allowed the organisation to execute exploitative and explorative activities using their dynamic capabilities. Organisational ambidexterity, a dynamic capability, makes it possible for the organisation to implement their adaptive strategies resulting in a competitive advantage.

**Figure 9**

*Proposed Framework - relationship between Organisational Ambidexterity and Adaptive Strategy Implementation*



## 7.4 ACADEMIC CONTRIBUTION OF THIS STUDY

According to Weiser et al. (2020a) research have shifted from the focus on the design of strategies and all its components, to gaining an improved comprehension of the adaptive dynamics thereof. As a result, researcher are no longer interested in the development of theoretical frameworks for implementing strategies but the understanding of how actual businesses interpret and put these frameworks into action (Weiser et al., 2020a). This renaissance in the field of strategy implementation research introduced fundamental philosophical difference between the traditional approach to strategy implementation and the adaptive turn (Weiser et al., 2020a). Notwithstanding its promise as an integrated perspective for deepening the knowledge of strategy execution, there is a limitations in the understanding of how the organisations attention affects strategy implementation (Weiser et al., 2020a). The benefit of openly integrating the inherent tensions of adaptive strategy implementation into a conceptual framework is that it contributes to the creation of feedback loops that informs strategy formulation and ultimately enabling adaptation (Nielsen et al., 2009; Tawse et al., 2019; Weiser et al., 2020a).

To date, there has been very little theoretical or empirical studies of the methods involved in the implementation of an adaptive strategy like a DTS(Weiser et al., 2020a). Even though senior leadership teams are intrinsically motivated to promote the DT of business models, structures, and processes, they are nevertheless confronted by major obstacles (Chaniyas et al., 2019). Pre-digital organisations face a difficult balancing act between maximizing the value of what they already have (exploitation) and developing new digital

capabilities (exploration) that are backwards-compatible with their current infrastructure and procedures (Svahn et al., 2017). Despite these challenges, only a small amount of research has been done in the context of DT as a critical element in the study of strategic change in the current business environment (Matt et al., 2015). Although there are some studies into the micro foundations of strategic change, DT has received limited attention in literature (Matt et al., 2015). To add to this leadership challenge, skilful executives recognize that strategy implementation is as important as strategy formulation, and that it will surface as an important source of a sustained competitive advantage in current times (Engert & Baumgartner, 2016).

This study builds on previously literature. Existing literature found that organisational ambidexterity is an antecedent of dynamic capabilities (van Lieshout et al., 2021). van Lieshout et al. (2021) found that organisations typically selects its ambidextrous construct first, and then build dynamic capabilities that are compatible with the construct of ambidexterity selected(van Lieshout et al., 2021). This research study contributes to literature by establishing a link between organisational ambidexterity and adaptive strategy implementation. Further to this, the study provides an understanding of the factors that influence the selection of the construct of ambidexterity in the current business context.

## **7.5 RECOMMENDATIONS FOR SENIOR LEADERS IN PRE-DIGITAL ORGANISATIONS**

Top management teams provide a crucial function in the management of the ambidexterity paradox during the implementation of adaptive strategies (Van et al., 2021). The interaction between employees, operational managers and senior executives is a foundational element in the achievement of dynamic capabilities, adaptive strategies and organisational ambidexterity (Jansen et al., 2020; Schoemaker et al., 2018; D. J. Teece, 2018; Weiser et al., 2020a).

Due to the importance of DT bin our current business context, top management is increasingly formulating and implementing DT strategies to master the challenges posed by DT and to systematically address the multifaceted transformative impacts of information technology (IT) on an organisation's internal and external environments (Chanias, 2017a). Operational managers typically embed behaviours that supports

exploitation and exploration in innovation and strategic processes, whereas senior executives influences across hierarchical levels ensuring homogeneity in how ambidexterity is achieved across the organisation (Jansen et al., 2020).

Whilst this study provides a framework for linking organisational ambidexterity to adaptive strategy implementation, it is the operationalisation of the framework that is key. This study found that various factors influences the selection of a construct of ambidexterity. These factors impacts the success of the ambidexterity construct selected and the exploration and exploitation activities that follows directly.

Based on the findings in this research study, it is recommended that senior leaders in pre-digital organisations:

- Define a clear and inclusive DTS in which multiple perspectives and objectives are examined. The strategies must offer a business-first approach and consider how technological improvements may affect the products, operations, and structures of the organisation.
- Support Innovation activities in the organisation by providing appropriate platforms and structures that supports innovation.
- Prioritise the allocation of adequate resources for the successful implementation of the DTS.
- Provide the necessary structures and resources to effect organisational Culture change that is in alignment with the DTS.
- Provide adequate learning opportunities for employees to upskill on new digital technologies and processes.

## **7.6 LIMITATIONS**

The terms DT and organisational ambidexterity are not widely understood terms in pre-digital organisations. The researcher had to use an indirect approach to determine the construct of ambidexterity selected during the implementation of a DTS. DT was sometimes confused with IT projects. The researcher had to explain to participants the difference and ask probing questions to steer the conversation in the direction that allowed for the relevant data to be collected. In addition to this, further limitations of the study include the following:

- The researcher was able to interview participants in senior leader positions across a wide variety of industries but the sample lacked enough representation from an executive level to provide insights from an overall organisational perspective.
- Due to the complexity of DT and organisational ambidexterity, the researcher could not cover all elements of this complex strategy implementation process to inform the framework that was presented.
- The research was based on the views and perspectives of senior leaders who are involved in the execution of DT strategies. Which means that the results are based on a sub-section of an organisation or business unit. Even though participants provide context within the entire organisation, the research study could only include the data based on the senior leaders perspective of their own area of responsibility.
- The interviewer was inexperienced in the research process and this could have an impact on the quality of the data collection process even though steps were taken to mitigate the risk. Pilot interviews was conducted to make sure that the questions were clear and would extract the relevant results.

## **7.7 SUGGESTIONS FOR FUTURE RESEARCH**

The objective of this research study was to establish whether there was a link between organisational ambidexterity and the implementation of an adaptive strategy. Digital transformation, which has become an important source of organisational change initiatives in current times, has a major impact on how strategies are implemented. The study therefore sought to respond to the research questions of the constructs of ambidexterity selected during the implementation of an adaptive strategy like DT as well as the factors that influenced the selection of the constructs.

The study found that there is a relationship between organisational ambidexterity and adaptive strategy implementation. To expand on the finding of this research study, the following suggested research should be considered:

- A better understanding of the factors that results in the selection of a specific construct of ambidexterity. This will provide practitioners with a framework of which construct will be better suited for their business context
- Linking the construct of ambidexterity to the digital maturity of the organisation

- Linking the construct of ambidexterity to the successful execution of DT strategies
- A quantitative study to support the findings of this research study and to further expand on the most appropriate construct of ambidexterity for the execution of an adaptive strategy like DT.

## **7.8 CONCLUSION**

Digitization has introduced an unparalleled advancement in society, the economy and business. This has transformed our lives and the fundamental nature of business in the global economy. Due to the impact of digitization on business and society, it is on the agenda of every business leader in recent times. In alignment with the ever changing environment of business which is fuelled by digitization and other environmental factors, the emerging research on adaptive strategy implementation has led to an evolution in the study of strategy implementation. This has introduced fragmentation in the field due to the various perspectives. An integrated approach to adaptive strategy implementation was proposed which integrates the traditional views on strategy implementation as well as the adaptive approach to strategy implementation. This gave rise to the coordination problem that exists when implementing adaptive strategies. Balancing both explorative and exploitative activities within organisation became a challenge. In an attempt to solve this coordination problem, Weiser et al. (2020a) recommended that it should be established whether a link exists between organisational ambidexterity and adaptive strategy implementation. This research study found that a link exists between organisational ambidexterity and the execution of an adaptive strategy like digital transformation. In addition to this, this research study found that four main factors influenced the selection of the constructs of ambidexterity. The results was summarised into a framework that can be used to contribute to the integrated framework of adaptive strategy implementation.

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## APPENDIX 1: ETHICAL CLEARANCE

**Gordon Institute  
of Business Science**  
University of Pretoria

**Ethical Clearance  
Approved**

Dear [REDACTED]

Please be advised that your application for Ethical Clearance has been approved.  
You are therefore allowed to continue collecting your data.  
We wish you everything of the best for the rest of the project.

[Ethical Clearance Form](#)

Kind Regards

This email has been sent from an unmonitored email account. If you have any comments or concerns, please contact the GIBS Research Admin team.



## APPENDIX 2: CONSENT FORM

Dear

### Informed consent for interviews

I am conducting research on Organizational Ambidexterity constructs during the implementation of a digital transformation strategy. The interview is expected to last thirty to sixty minutes, and will help us understand *how organizations balance ordinary (exploitive) activities and innovative. (explorative) activities* during the implementation of digital strategies. **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;
- Verbatim quotations from the interview may 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 [REDACTED] [94053643@myqibs.co.za](mailto:94053643@myqibs.co.za)

Research Supervisor Suzanne Myburgh [Suzanne.Myburgh@hotmail.com](mailto:Suzanne.Myburgh@hotmail.com)

Signature of participant: \_\_\_\_\_ Date: \_\_\_\_\_

Signature of researcher: \_\_\_\_\_ Date: \_\_\_\_\_

# APPENDIX 3: INTERVIEW GUIDE

**Start time**  
**End time**

**Name**

**Organisation**

**Job Title**

---

Thank you for consenting to participate in this interview. Your time and effort in this research are much appreciated.

DT has moved to the top of many CEOs' strategic agendas. This is due to how the nature of innovation and entrepreneurship has been profoundly changed over the past two decades as a result of the widespread availability of new and powerful digital technologies, digital platforms, and digital infrastructure. However, there is currently a lack of literature on how to manage the interplay of DT programs and the ordinary activities in the existing pre-digital organisation.

A crucial part of corporate strategy is determining how much to invest in exploitation as opposed to exploration. Exploration is related to organic structures, distributed systems, innovation, improvisation, autonomy, chaos, market expansion and technologies whereas exploitation is characterised by rigid structures, tightly coordinated systems, path dependence, processes, control and bureaucracy, established markets and technologies.

To achieve long-term success, it is essential for organisations to consistently adapt to external challenges and opportunities and to respond with innovative solutions and structural realignments. Similarly, organisations cannot invest in the future or preserve a competitive advantage if they do not utilise established business models. As a result, strong companies in a constantly changing environment are ambidextrous: they are coordinated and effective in the present, but also equipped to adapt to future changes.

This is an exploratory research discussion, and I encourage you to speak freely since you can be confident that the information you provide will stay private, and you will remain

anonymous. In addition, I will not identify you by name. You are also free to discontinue your participation at any penalties. I will first discuss the interview consent form with you in its entirety, before we get started. In addition to this, I would want to ask for your permission to record this interview and take notes during the course of the conversation.

#### Clarifying the understanding of organisational ambidexterity

Organisational ambidexterity, the divide between exploratory and exploitative operations, where the exploitative activities are fixated on efficiencies, predictability and stability whilst the exploratory activities involves agility, reactivity and innovation, is a mechanism used to effectuate an organisations competitive advantage. To date, organisational ambidexterity has not been linked to adaptive strategies like DT implementations. This research study wish to identify the constructs of ambidexterity selected during the implementation of a digital strategy and secondly identify the factors that contributed to the selection of the selected construct.

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### **Research Question 1**

#### **Interview Questions**

Q1: Could you describe the current DT activities within your organisation?

Q1a: Tell me how are activities are balanced between the old way of work and the new way of work?

Q1b: What role does top management play in these decisions?

Q1c: Can you expand on whether roles are clearly defined or more flexible during execution of the DTS?

Q1d: What type of skills do you have in your organisation?

### **Research Question 2**

Q2: Tell me about the factors that influences the selected way of work between the "new" and the "old" activities during the execution of your digital strategy

Q2a: Which of these factors contributed the most to your ways of work

## APPENDIX 4: FREQUENCY ANALYSIS

Question	Theme	Category	Participant	Customer Facing	Support Services	Grand Total
Research Question 1	Ambidexterity	Contextual Ambidexterity	P001		1	1
			P007		1	1
			P008		1	1
			P011	1		1
		Structural Ambidexterity	P003		1	1
			P004	1		1
			P005	1		1
			P010	1		1
			P004	1		1
			P006		1	1
			P009		1	1
			P012	1		1
		<b>Total</b>		<b>6</b>	<b>6</b>	<b>12</b>
Research Question 2	DTS	Clear DTS	P002	1		1
			P005	1		1
			P006	1		1
			P007		1	1
			P012	1		1
		<b>Total</b>	<b>4</b>	<b>1</b>	<b>5</b>	
	Innovation	Method of Innovation	P002	1		1
			P004	1		1
			P006		1	1
			P008		1	1
			P009		1	1
			P010	1		1
			P012	1		1
	<b>Total</b>	<b>4</b>	<b>3</b>	<b>7</b>		
	Resource Allocation	Funding	P002	1		1
			P003		1	1
			P004		1	1
			P008		1	1
			P011	1		1
	<b>Total</b>	<b>2</b>	<b>3</b>	<b>5</b>		
	Workforce	Culture	P001		1	1
			P003		1	1
P005			1		1	
P007				1	1	
Skills and Capacity		P001		1	1	
		P002	1		1	
P003		1	1			

Question	Theme	Category	Participant	Customer Facing	Support Services	Grand Total
			P004	1		1
			P005	1		1
			P006		1	1
			P007		1	1
			P008		1	1
			P009		1	1
			P010	1		1
			P011	1		1
			P012	1		1
		<b>Total</b>		<b>7</b>	<b>9</b>	<b>16</b>

## APPENDIX 5: CODE BOOK (ITERATIONS 1 - 3)

### ITERATION 1 - THEMES, CATEGORIES AND CODES

Research Question	Themes	Category	Code
Question 1	Ambidexterity	structural	separate design teams
Question 2	Digital strategy	Clear DTS	No clear strategy for digital transformation
			No DTS
		initiators	Digitization initiated by top management
Question 2	top management	Ownership	No C-level responsible for innovation
Question 1	Ambidexterity	conceptual	building the plane whilst flying it
			no dedicated team for digital strategy implementation
		External Ambidexterity	implementation outsourced
			outsource as much of the implementation work as possible to balance workload
	structural ambidexterity	segregate between project and bau	
Question 2	Capabilities	Ordinary capabilities	Automation
			business as usual improvements
			distinction between frontline and back office
			make sure back-offic is functioning properly
Question 2	Digital projects	Business units	fragmented implementation across organisation
Question 2	digital strategy	initiators	Top down approach

Research Question	Themes	Category	Code
Question 2	Idea generation	Customers	use customer insights to identify pain points
Question 2	Inhibitors	Adoption	different maturity levels around adoption of solutions
			technology adoption the biggest obstacle
			they don't want to change anything because they are comfortable
		collaboration	disconnect between IT and business
		Resources	Doing more meaning ful work and less operational work
		skills	skills challenges in the user base
		success	not understanding existing processes
		Systems	limitations of existing IT systems
		Workforce	capacity restrictions due to dual roles
			digitization dependent on the age of the workforce
people in their positions for many years are inhibitors			
Question 2	Initiators		IT leading the converstaion for digitization
		business units	each business unit decide on the technology it wants to use
		management	Middlemanagement drive innovation
Question 2	Innovation	Bottom-up	Bottom up drive for the way-of-work and innovation

Research Question	Themes	Category	Code
		Idea generation	ideas generated within the organisation
Question 2	Intent	Innovation	need to be cutting/bleeding edge
Question 2	ordinary capabilities	Efficiencies	Continuous improvement initiated by individual team members
			Moving to digital enabled platforms
			Self-service due to digitization
Question 2	Organisation	Change management	organisational motivation and organisational change to adopt the systems
		Maturity	different levels of maturity across business units
		Structure	top management decides on the structure of the organisation
		Way-of-Work	organic way-of-work
Question 2	Outcomes of implementation	Results	cannot afford failure in current economic climate
			critical to get transformation programs right as it has an impact on revenue
			does not get the correct focus
			failed digitization when working with external vendor
			Failure of projects
			fragmented implementation across the organisation
			Implementation of the strategy is challenging



Research Question	Themes	Category	Code
			Ineffective collaboration platforms results in solutions not being implemented
		success	business model innovation
Question 2	Resource Allocation	Funding	mismatch between budget allocation and strategy formulation and implementation
Question 2	support	lack of Support	Top heavy management structure that provides little support to teams
		management	No central governance
Question 2	top management	Lack of Understanding	top management don't understand the difference between frontline and back office
Question 2	Ways-of-Work	Collaboration	business working closely with technology
			Collaboration and alignment with internal and external parties
			cross-functional collaboration
		Structure	integrated teams across the organisation
Question 2	Workforce	Skills	Clearly defined roles
			largely specialist skills
			Specialist and generalist teams
		Structure	flat organisational structure

## ITERATION 2 - THEMESE, CATEGORIES AND CODES

<b>Research Question</b>	<b>Theme</b>	<b>Category</b>	<b>Code</b>
Question 1	Ambidexterity	structural	separate design teams
Question 2	Digital Strategy	Clear DTS	No DTS
		initiators	Digitization initiated by top management
Question 1	ambidexterity	Contextual Ambidexterity	no dedicated team for digital strategy implementation
		External Ambidexterity	outsource as much of the implementation work as possible to balance workload
		structural ambidexterity	segregate between project and bau
Question 2	Digital projects	Business units	fragmented implementation across organisation
Question 2	digital strategy	initiators	Top down approach
Question 2	initiators	business units	each business unit decide on the technology it wants to use
		management	Top management drive innovation
Question 2	Innovation	Bottom-up	Bottom up drive for the way-of-work and innovation
		Idea generation	ideas generated within the organisation
			use customer insights to identify pain points
Question 2	Intent	Innovation	need to be cutting/bleeding edge
Question 2	ordinary capabilities	Efficiencies	Continuous improvement initiated by individual team members
Question 2	Organisation	Change management	organisational motivation and organisational change to adopt the systems

<b>Research Question</b>	<b>Theme</b>	<b>Category</b>	<b>Code</b>
		Structure	top management decides on the structure of the organisation
		Way-of-Work	organic way-of-work
Question 2	Outcomes of implementation	Results	business model innovation
			Failure of projects
Question 2	Resource Allocation	Funding	mismatch between budget allocation and strategy formulation and implementation
Question 2	Support	Governance	No central governance
		lack of Support	Top heavy management structure that provides little support to teams
Question 2	Ways-of-Work	Collaboration	cross-functional collaboration
Question 2	Workforce	Skills	largely specialist skills
			Culture
Question 2		Structure	flat organisational structure

### ITERATION 3 - THEMES, CATEGORIES AND CODES

Question	Theme	Category	Code
Research Question 1	Ambidexterity	Contextual Ambidexterity	no dedicated team for digital strategy implementation
		External Ambidexterity	outsource as much of the implementation work as possible to balance workload
			Outsource the implementation as it is not our core business
		structural ambidexterity	segregate between project and bau
Research Question 2	DTS	Clear DTS	Documented DTS
	Innovation	Method of Innovation	Bottom up drive for the way-of-work and innovation
	Resource Allocation	Funding	mismatch between budget allocation and strategy formulation and implementation
	Workforce	Culture	Organisational culture
		Skills and Capacity	largely specialist skills
			Specialist and generalist teams