Drivers of Managerial Ambidextrous Behaviour

By

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Declaration

This thesis is the result of the author's original research. It has been composed by the author and has not been previously submitted for examination which has led to the award of a degree.

Signature:

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Abstract

Research in ambidexterity literature has presented evidence suggesting that the more dynamic, volatile, and unpredictable the environment, the more managerial ambidexterity is required for success. Whereas managerial ambidexterity is increasingly gaining ground in the literature, drivers and underpinnings of managerial ambidextrous behaviour (manager's behavioural orientation toward combining exploration and exploitation) remain largely unexplored. This study aims to fill this gap in the literature by investigating: 1) how the tension between exploration and exploitation is reconciled by managers and the role their skills play in reconciling this tension, 2) the organisational contextual factors that influence managers' ability to manage this tension, and lastly 3) the variation in managers' ambidexterity and its relation to their level in the corporate hierarchy. This study brings together two seemingly different and opposing streams of research. The first stream suggests that individuals do not operate in a vacuum and that organisational context plays a crucial role in enabling and constraining their ambidextrous behaviour (i.e., Gibson and Birkinshaw, 2004; Kao and Chen, 2016; Zhang et al., 2018), and the second stream suggests that individuals' skills and characteristics shape their capacity to excel at reconciling the tension between exploration and exploitation (i.e., Good and Michel, 2013; Mom et al., 2009; Barile et al., 2015; Volery et al., 2015). This study adopts an interpretive approach that is based on selecting participants from a wide range of industries (non-probability sampling). To analyse data, thematic analysis was conducted. In managing data, both NVivo and MS-word were adopted.

Following a micro-level approach, this study makes important contributions to the literature of ambidexterity by providing fresh and empirically-driven insights into drivers of managerial ambidextrous behaviour. First, the findings of the study reveal that both organisational context and personal skills and characteristics play a crucial role in shaping managers' capacity to demonstrate ambidextrous behaviour. Second, the findings indicate that tolerance for early failure is the determinant attribute of organisational context that releases managers' potential of exploratory behaviour. Thus, this study draws practitioners' and researchers' attention to one of the main determinants of managerial ambidextrous behaviour, yet the least researched in managerial ambidexterity literature; that is, tolerance for early failure. Third, the findings demonstrate that managers' ambidexterity is associated with their position of authority and that the adverse impact of lack of tolerance for early failure on managers' capacity to demonstrate ambidextrous behaviour diminishes as their position of authority increases. Thus, it can be argued that this study is the first

study to investigate the role decision-making authority plays in mitigating the adverse impact of lack of tolerance for early failure on managerial ambidexterity. Lastly, the study proposes key characteristics and skills of ambidextrous managers that are deemed essential for overcoming the cognitive challenge of addressing the conflicting demands of exploration and exploitation.

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Chapter One: Introduction

The researcher has always been fascinated and intrigued by the concepts of survival and resilience and wanted to learn why some organisations stumble and become obsolete when faced with the challenge of disruptive change while others survive and prosper.

Disruptive change causes firms to struggle in meeting the latent needs of the market (Hafkesbrink and Schroll, 2014). Such was the case of Kodak and Polaroid. Their strategy, which was effective at one point, became destructive when the rules of the game changed in the rapidly changing market they were operating in. They were both fooled by the success that their businesses were achieving, and as a result, they became trapped in what scholars call a "success trap" (see March, 1991). Scholars argue that for firms to meet the challenge of disruptive change, they have to be good at exploitation (i.e., execution, efficiency, and production) and exploration (i.e., search, flexibility, and innovation), in other words, to be ambidextrous (Mom et al., 2009; Tempelaar and Rosenkranz 2019; Kauppila and Tempelaar; 2016). However, even when firms recognise the need to be successful at the two activities to adapt to changes in the environment, they often fail to respond effectively (Tripsas and Gavetti, 2000; Chen, 2017; Hafkesbrink and Schroll, 2014). The failure of iconic firms, such as Kodak and Polaroid, raises the questions of whether their senior teams and managers lacked the cognitive capabilities and skills needed to balance exploration and exploitation (Helfat and Peteraf, 2015). Hence, it was argued that ambidextrous firms need ambidextrous managers (O'Reilly III and Tushman, 2013). Only then, firms will be able to avoid being trapped in suboptimal stable equilibria, to differentiate themselves, to create and recombine resources in novel ways, and to stand out in situations of rapid change (O'Reilly III and Tushman, 2013; Mom et al., 2009). This illustrates the importance of investigating ambidexterity at the manager level of analysis and exploring what drives variations in managers' ambidexterity.

This study is inspired by the following question:

*"What is the difference that makes a difference?" (Richard J. Bernstein,1986)as quoted by (Schwandt, 2*000*, pp.189)*

Ambidexterity can be examined at the organisational, unit, and individual levels. This study aims to investigate ambidexterity at the individual level of managers.

1.1 Research Aims and Objectives

Organisations nowadays operate in an environment characterised by turbulence, rapid change, and high level of competition (Good and Michel, 2013; Laureiro-Matrtinez et al., 2015; Teece, 2017; Teece, 2007). This environment is caused by several factors, such as changing the customers' demand and behaviour, supply chain issues, and technological advancements. Research indicates that for organisations to maintain agility, competitiveness, and prosperity in such environment, they must excel at exploitation and exploration activities. In strategic management literature, the capacity to balance the two contradicting demands of exploitation and exploration is referred to as 'ambidexterity' (Raisch and Birkinshaw, 2008; Gibson and Birkinshaw, 2004; Simsek, 2009; March, 1991; Uotila et al., 2009; Turner *et al.*, 2016; Duncan, 1976; Chen, 2017). Nevertheless, scholars argue that the simultaneous pursuit of the two activities is challenging (March, 1991; Gibson and Birkinshaw, 2004; Gupta, 2006; Wang and Rafiq, 2014; Laureiro-Matrtinez et al., 2015). For instance, even when organisations recognise the need to adopt a dual strategy to adapt to the change in their environment, they often fail in that pursuit (Tripsas and Gavetti, 2000, Chen, 2017). Balancing exploration and exploitation activities entails obtaining the contradictory objectives of flexibility and efficiency, stability and adaption, short-term profit and long-term growth (Raisch and Birkinshaw, 2008), and considering resource scarcity in organisations, the need for a trade-off emerges and becomes unavoidable (March, 1991; Gupta et al., 2006; Chen, 2017).

Previous research primarily provides insights on how to build ambidexterity at the organisational level, which can be achieved by forming two separate business units for exploration (i.e., R&D unit) and exploitation (i.e., sales unit) that are then coordinated by senior managers. Despite the success that organisations adopting this technique have achieved, several scholars posit that structural separation alone may not be sufficient because it cannot always assure prosperity or even survival (Simsek, 2009; Gibson and Birkinshaw, 2004; Birkinshaw and Gibson, 2004; Wang and Rafiq, 2014). As a result, scholars' attention has shifted from examining ambidexterity at the macro-level (i.e., organisational level) to examining it at the micro-level (i.e., individual level).

This shift was first proposed by Gibson and Birkinshaw (2004) and was driven by the belief that the tension between exploitation and exploration is best reconciled at the individual level; thus, they introduced the concept of 'contextual ambidexterity'. According to them, contextual ambidexterity can be achieved by building a business unit context that encourages individual employees to use their own judgments as to how to divide their time between the conflicting demands of exploration and exploitation. Although Gibson and Birkinshaw claim that contextual ambidexterity aims to focus on the human side of the organisation, their findings fail to provide us with a complete understanding of how managers' ambidexterity is obtained. Most importantly, they fail to explain how organisational context affects the behavioural capacity of managers to reconcile the tension between exploitation and exploration, and that's due to their focus on capturing ambidexterity at the business-unit level only. Even subsequent studies that aim to address this gap in the literature by examining ambidexterity at level of managers, such as Mom et al. (2009), which was the first study to refute previous beliefs suggesting that within a single domain (i.e., individual or subsystem) exploration and exploitation will generally be mutually exclusive were quantitative oriented, and thus, they did not allow us to see the world from the micro-viewpoints of practitioners. Good and Michel (2013) criticise prior research such as Mom et al. (2009) and Gibson and Birkinshaw (2004) for their failure in shedding light on how the individual differences between managers (i.e., skills and competencies) impact their capacity to reconcile the conflicting demands of exploration and exploitation (i.e., simultaneous balancing or shifting from one to another (temporal)), and that is due to their focus on the behavioural actions of those who are managing the exploration/exploitation dilemma instead of the differences between them.

The heavy emphasis on examining ambidexterity at the macro level, quantitatively, as well as focusing on the behavioural actions of practitioners instead of the individual differences between them have left ambidexterity theory incomplete, which in turn reduces our understanding of how managerial ambidexterity is achieved (Mom et al., 2009; Chen, 2017; Raisch and Birkinshaw, 2008; Tempelaar and Rosenkranz, 2019; Gibson and Birkinshaw, 2004; O'Reilly III and Tushman, 2013). To address this void and building on the notion of contextual ambidexterity, this study seeks to examine ambidexterity at the individual level of managers. The study adopt Mom et al.'s (2009, pp.812) definition of manager's ambidexterity as "a manager's behavioral orientation toward combining exploration and exploitation related activities within a certain period of time". This

study aims to advance our understanding of managerial ambidexterity by qualitatively exploring how managers reconcile the tension between exploration and exploitation activities, investigating what kind of individual competencies and skills that enable and reinforce manager's capability to demonstrate ambidextrous behaviour, exploring the organisational context factors that influence managers' ability to manage this tension, and most importantly exploring the variation in managers' ambidexterity and its relation to their level in the corporate hierarchy.

Examining organisational context is deemed important because it provides new insight into how organisational context shapes managers' behaviours, which then shapes collective behaviour and increases business unit capacity for contextual ambidexterity, which eventually leads to superior performance. Scholars such as Kauppila and Tempelaar (2016) posit that employees do not operate in a vacuum, and organisational context may play a vital role in enabling and constraining the cognitive capability of individuals to demonstrate ambidextrous behaviour. That said, this study does not suggest that organisational context shapes or changes managers' personality, and that's because the behavioural patterns personality are rooted within individuals (see Zhao and Seibert, 2006). However, it can be argued that organisational context influences managers' practices and shapes their capabilities to manage hybrid tasks. Thus, in this study managers' ambidextrous behaviour is viewed as a practice managers engage in to address the change in their task environment (see Papachroni and Heracleous, 2020).

In examining the organisational context and its role in shaping managers' ambidextrous behaviour, the study adopts Gibson and Birkinshaw's (2004) elements of contextual ambidexterity: discipline, stretch, support and trust. Although Gibson and Birkinshaw were the first to explore the impact of the four themes on the pursuit of contextual ambidexterity, no further studies have been conducted to verify the accuracy of these themes (Zhang et al., 2018), nor to explore the role these themes play in shaping manager's capacity to demonstrate ambidextrous behaviour. Thus, this study is considered the first study to examine this relationship.

Similarly, understanding characteristics and skills of managers that are required to reduce the cognitive tension of balancing exploration and exploitation is vital because it will help for instance organisations in managing the composition of their workforce (selecting employees based on their skills and competencies). Thus, this study suggests that when investigating drivers of managerial

ambidexteirty both dimensions, namely organisational context and individual characteristics and skills should be taken into consideration.

Understanding drivers of managerial ambidextrous behaviour is crucial because managers tend to influence other employees' behaviour and actions through their practices (See Mom et al., 2009), and also tend to influence the strategic direction of the organisation and how it responds to the change in the environment (Teece, 2017). Furthermore, the collective behaviour of employees shape the business-unit capacity to become ambidextrous, which eventually leads to superior performance (Gibson and Birkinshaw, 2004). Subsequent studies empirically examine and confirm the positive relationship between contextual ambidexterity and organisational performance (Wang et al., 2014). The vital role managers play in influencing other employees' behaviours and actions through their practices was highlighted in the literature, albeit not in ambidexterity literature (i.e., Kotter and Heskett, 1992; Chatman and Cha, 2003).

This study contributes to answering a call by the current body of literature which suggests the need to understand how the tension between exploration and exploitation is reconciled at the individual level (i.e., Zhang et al.2018; Vallina et al.2019), particularly at the individual level of managers (Mom et al., 2009), to examine the impact of organisational context on managing this tension (the individual outcomes of contextual ambidexterity)(i.e., Simsek, 2009; Raisch et al., 2009; Gupta et al., 2006; Mom et al., 2009;), and to examine how different types of coordination mechanisms relate to variations in managers' ambidexterity (Mom et al., 2009). Further, this study answers a call by O'Reilly III and Tushman's (2013) which suggests the need to examine ambidexterity qualitatively and across management levels. In the next chapter, an extensive literature review is provided. From this review, the following research questions are derived:

1. How is the conflict of exploitation and exploration activities reconciled by individual managers?
2. What are the individual competencies and skills that influence managers' capacity to reconcile the tension between exploration and exploitation?
3. How does organisational context, which comprises discipline, stretch, support and trust, shape managerial ambidextrous behaviour?

The three questions above aim at advancing our understanding of how managerial ambidexterity is achieved by examining the relationship between managerial ambidexterity and its drivers. Thus,

it can be argued that the motive to investigate drivers of ambidextrous behaviour among managers guided this thesis. To answer the three questions above, the researcher sought to bring together two seemingly different streams of research. The first stream aims at exploring how organisational context shapes individuals' capacity to demonstrate ambidextrous behaviour (i.e., Gibson and Birkinshaw, 2004; Kao and Chen, 2016; Zhang et al., 2018), and the second stream aims at examining skills and characteristics of ambidextrous individuals (i.e., prior knowledge and multitasking) that increase their capacity to excel at reconciling the tension between exploration and exploitation (i.e., Kauppila and Tempelaar, 2016; Mom et al., 2009; Barile et al., 2015; Volery et al., 2015). When explaining individual ambidexterity (i.e., manager's ambidexterity), organisational factors have to be considered alongside personal characteristics (Raisch et al., 2009).

In the following chapter, a theoretical background from organisational learning and ambidexterity literature is provided and followed by a discussion on how different schools of thought view and approach ambidexterity. Then, a review of drivers of individual and managerial ambidexterity and characteristics of ambidextrous managers is provided. The review is guided by a question most individual ambidexterity studies revolve around:

What makes a manager ambidextrous?

This theoretical review helped the researcher identify the gaps in the ambidexterity literature, develop the research questions, and formulate the conceptual framework.

1.2 Methodology

The notion of individual ambidexterity is still in its infancy. This study aims at advancing our understanding of managerial ambidexterity by exploring how the tension between exploration and exploitation activities is reconciled at the individual level of managers, exploring the organisational context factors that influence managers' ability to manage this tension, and lastly exploring the variation in managers' ambidexterity and its relation to their level in the corporate hierarchy. To meet these aims, this study seeks to examine the relationship between managerial ambidexterity and its drivers and underpinnings by exploring the interconnections between actors (managers), actions and contexts. This study is considered exploratory, and thus, qualitative

methodology is the most appropriate approach for the research topic and the research questions under investigation.

1.2.1 Research Context

This study is a cross-context comparative study. To explore how organisational context shapes the exploratory and exploitative behaviour of managers, the study adopted a non-random (non-probability) sampling approach that is based on selecting participants from a wide range of industries (both service and manufacturing industries) such as manufacturing and engineering services, advanced technology manufacturing and services, telecommunications, financial and professional services, healthcare services, waste, water and energy management, and hospitality and events. The researcher followed Mom et al. (2009), who suggest that investigating manager's ambidexterity compels the researcher to examine managers whose firms are confronted with pressures to explore and exploit due to the change in their external environment. These firms are forced to explore to address the changes in customer demand, competition, technology, and regulations, and at the same time, they are forced to exploit, focus on efficiency and cutting costs to meet their short-term competitiveness pressure.

1.2.2 Data Collection

The choice of data collection method is influenced by the research problem, research design, the nature of the participants, and researcher skills (Ghauri and Gronhaug, 2005). This section presents the data collection method adopted in this study and the rationale behind choosing it.

For data collection, the researcher employed semi-structured interviews. A total of 36 semi-structured interviews (including four respondent validation interviews) were conducted from across industries and management levels over six months. The majority of these interviews (a total of 24) were face-to-face, and the rest (a total of 12) were conducted virtually via Zoom (a reliable video communication program). Zoom interviews were conducted where face-to-face interviews were not possible due to the Covid-19 Pandemic.

1.2.3 Method of Analysis

Thematic analysis approach was adopted in this study, and that's due to three reasons. Firstly, themes in this study had been created and deduced from the review of contextual ambidexterity

literature (i.e., discipline, stretch, support and trust) not from the raw data as in the case of grounded theory nor based on the frequency of their occurrence as in the case of content analysis. Secondly, thematic analysis approach allows for analysing narratives and stories of those who experienced them (Sparker, 2005). Thirdly, thematic analysis is compatible with phenomenological premise (Holloway and Todres, 2005), which fits with the epistemological stand of the researcher. The phenomenological premise aims to better understand the motives of actors and allows the researcher to see the world from that micro-view point of participants (Holloway and Todres, 2005).

1.3 Main Findings and Contributions of Thesis

Whereas the notion of individual ambidexterity is gaining popularity in organisational theory, drivers of managerial ambidexterity remain unexplored. This study makes important contributions to theory and practice. Focusing on the microfoundations of organisational ambidexterity and building on the notion of contextual ambidexterity, this study advances our understanding of managers' ambidexterity and its drivers.

Firstly, the current body of literature on ambidexterity has typically focused on the macro level (i.e., structural ambidexterity). Although the interest in examining ambidexterity at a more micro level (i.e., individual) has increased, there remains a paucity of studies that sought to articulate and examine ambidexterity qualitatively at the level of lived experience of managers. This study thus aims to fill this gap in the literature.

Secondly, the findings of this study reveal that both exploration and exploitation can coexist within a single domain, particularly at the individual level of managers, and therefore exploration and exploitation should not be perceived as incompatible or two ends of a continuum (see Mom et al., 2009).

Thirdly, based on Gibson and Birkinshaw's (2004) and Birkinshaw and Gibson's (2004) conceptualisation of organisational context that is characterised by a combination of stretch, discipline, support, and trust, this study concludes that organisational context plays a vital role in shaping managers' ambidextrous behaviour. Although Gibson and Birkinshaw (2004) were the

first to suggest that the four attributes shape individual and collective behaviours that in turn shape business unit-capacity for contextual ambidexterity, no further studies have been conducted to verify the accuracy of these attributes (Zhang et al., 2018), nor to explore the role these attributes play in shaping managers' capacity to demonstrate ambidextrous behaviour. Thus, to the best of the researcher's knowledge, this is the first study to examine the impact of the four attributes on managers' ambidexterity.

Fourthly, this study draws researchers' and practitioners' attention to the vital role tolerance for early failure plays in reconciling the tension between exploration and exploitation, and also the role decision-making authority plays in mitigating the adverse impact of lack of tolerance for early failure on managerial ambidexterity. Although prior research on ambidexterity links position of authority with managerial ambidexterity (i.e., Mom et al., 2009), this study is the first study to investigate the role position of authority plays in counteracting the adverse impact of lack of tolerance for early failure on managers' capacity to maintain a balance between exploration and exploitation. Thus, this is considered a significant contribution to ambidexterity literature.

Fifthly, the study proposes key characteristics and skills of ambidextrous managers that are deemed important for overcoming the cognitive challenge of addressing exploration and exploitation activities.

Lastly, the study proposes a framework that helps both researchers and practitioners understand the role organisational context and personal skills play in shaping the ambidextrous behaviour of managers. The framework paves the way for ambidexterity to take place between managers, which then expands to become a collective behaviour and in turn shapes business-unit capacity for contextual ambidexterity, which eventually leads to increase the competitiveness, agility, and resilience of the organisation. Sampling from across sectors combined with saturation, which was reached by the twenty-fourth interview, may help in drawing conclusions that are broader than the source of the primary data in this study, or in other words, generalising beyond the case interviews. A detailed summary of all findings and contributions of the thesis can be found in chapter five.

The next chapter aims at providing a detailed overview of ambidexterity and its approaches. The review will focus on organisational context elements and personal skills that may influence managers' capacity to demonstrate ambidextrous behaviour.

1.4. Outline of Thesis

The thesis consists of six chapters. Chapter one explains the motive behind the study, the relevance of the topic, and the aim and objectives of the study. Moreover, the chapter captures the research questions and briefly describes the methodological approach adopted to answer them.

Chapter two provides an extensive literature review on the notion of ambidexterity. The chapter concludes by identifying gaps in the literature from which a research framework is formulated.

Chapter three describes the methodological approach used to address the research questions in detail. In this chapter, the researcher made a comparison between the main two research philosophies adopted in the literature and justified the reasons for adopting a qualitative approach, non-random sampling, and thematic analysis.

Chapter four presents the analysis and the findings of this study. The findings are based on 36 interviews with managers from a wide range of industries and from across the corporate hierarchy. This chapter captures the role of organisational context and individual characteristics in shaping managers' capacity to demonstrate ambidextrous behaviour.

Chapter five shows the discussion of the findings of this study. The chapter aims at providing a summary of the findings and contributions of the thesis. It also aims at highlighting the limitations of the study and directions for future research.

Lastly, chapter six presents the conclusion of the study.

CHAPTER 2: LITERATURE REVIEW

The literature review is essential and is a crucial part of doctoral study because it allows the researcher to develop a research idea, learn what is already known about a specific field, identify gaps in knowledge and potential areas where a contribution to knowledge could be made (Easterby-Smith et al., 2002). Conducting a literature review on individual ambidexterity is deemed important as the field is still in its nascent stages and requires further research (see (Kauppila and Tempelaar, 2016; Zheng, 2018; Vallina *et al.*, 2019; Zhang et al., 2018). In this chapter, an extensive theoretical background from organisational learning and ambidexterity literature is provided and followed by a discussion on how different schools of thought view ambidexterity and manage the conflicting demands of exploration and exploitation. Then, a review of drivers of managerial ambidexterity and characteristics and skills of ambidextrous managers is provided and discussed. This theoretical review helped the researcher learn about underpinnings and drivers of managerial ambidexterity as discussed in prior research, identify the gaps in the ambidexterity literature and develop the research questions.

2.1 Introduction to the Chapter

Literature on ambidexterity has provided evidence that balancing exploration and exploitation is beneficial to organisational performance (i.e., He and Wong, 2004; Ojha et al., 2018) and individual performance (i.e., Kauppila and Tempelaar, 2016; Vallina et al., 2019). Yet, there is less clarity on how this balance is maintained, especially at the individual level of managers. To advance our understanding of how the conflicting demand of exploration and exploitation activities is reconciled by managers , scholars suggest to move the analysis further to the micro-level (Mom et al., 2007; Mom et al., 2009; Gupta et al., 2006; Vallina et al., 2019; Kao and Chen, 2016; Chen, 2017), and to focus on how ambidexterity is obtained, rather than focusing on linking it to performance (Raisch *et al.*, 2009).

Shifting the attention to examining ambidexterity at the micro-level has been driven by the belief that in an era of disruptive change, firms need to speed up their innovation process by building a supportive context that empowers individual employees to act on behalf of their organisations and respond to the change in their task environment by embedding exploration (i.e., depart from the traditional ways of doing things) and exploitation (i.e., operational activities) within their daily

routine (maintaining a balance between exploration and exploitation activities), in other words, to be ambidextrous. The shift has also been driven by the belief that the tension between exploitation and exploration is best reconciled at the individual level, not at the top-management level, simply because top executives may face many constraints and limitations (i.e., limited cognitive capability and myopia), and can become the bottleneck of structural ambidexterity which may cause structural ambidexterity to fail (Chen, 2017), and also to the avoid the coordination cost and problems associated with structural separation and transition cost associated with temporal ambidexterity (Simsek, 2009).

Focusing on managers' ambidexterity is deemed important because as rates of change and uncertainty escalate, managers face dynamic decision making (DDM) scenarios (Smith et al., 2010; Good and Michel, 2013). Furthermore, prior research suggests that employees who combine exploration and exploitation are more creative than those who only demonstrate a single behaviour. That's because the integration of contradictory demands allows them to question their underlying beliefs and assumptions (i.e., Miron-Spektor et al., 2011), which is vital to avoid being trapped in suboptimal stable equilibria. Thus, they suggest that the more dynamic and unpredictable the environment, the more managerial ambidexterity is thought to be necessary for success (Davis et al., 2009; Good and Michel, 2013; Vallina et al., 2019).

This chapter aims to offer a detailed overview of how the notion of ambidexterity has evolved, discuss different approaches to ambidexterity, and most importantly, discuss drivers to managerial ambidexterity as studied in the literature. Based on this review, the gap in the ambidexterity literature was identified, the research questions emerged, and the conceptual framework was formulated.

2.2 Ambidexterity: Evolution of the Concept

"The Roman god Janus had two sets of eyes, one pair focusing on what lay behind, the other on what lay ahead" (Tushman and O'Reilly III, 2004, pp.74)

Ambidexterity refers to the ability of humans to use both hands with equal dexterity (Simsek, 2009). In an organisational context, the term 'ambidexterity' was first used by Duncan in 1976 but credited to March (1991), who had managed to develop it and generate great interest in it (Raisch and Birkinshaw, 2008). Ambidexterity in organisations is achieved by simultaneously pursuing

exploration and exploitation activities (Gupta *et al.*, 2006); March, 1991; Ojha et al., 2018; Gibson and Birkinshaw, 2004). Since the publication of March's (1991) pioneering article, the "twin concepts" underpinning organisational ambidexterity, namely, exploration and exploitation, have emerged and increasingly come to dominate organisational analyses of technological innovation, organisation design, organisational adaptation, organisational learning, competitive advantage and, indeed, organisational survival (Gupta *et al.*, 2006), simply because ambidexterity has been positively associated with superior performance and competitive advantage (O'Reilly III and Tushman, 2013; Uotila et al., 2009; Gibson and Birkinshaw, 2004; Levinthal and March, 1993; He and Wong; 2004).

Ambidexterity research suggests that organisations need to develop two types of organisational capabilities: operational capabilities that are required for day to day activities and associated with exploitation, and strategic flexibility that is necessary to address the change in the environment and associated with exploration. (Dixon *et al.*, 2007). Exploitation includes terms like refinement, choice, production, efficiency, selection, execution, implementation, whereas exploration is associated with terms like risk-taking, variation, search, experimentation, innovation, flexibility and discovery (March, 1991; Levinthal and March, 1993). Further, exploration refers to the search for new adaption, whereas exploitation refers to the use of a known adaption (Mitchell, 1996). Exploration is the search for new information, whereas exploitation is the reliance on knowledge and lessons gained from experience (Fang and Levinthal, 2009).

Organisational ambidexterity has been defined broadly, and several other terms have been used interchangeably with ambidexterity, but tend to refer to the same underlying concept, and that includes reconciling exploitation and exploration, the simultaneity of induced and autonomous strategy processes, synchronizing incremental and discontinuous innovation, balancing search and stability (Raisch and Birkinshaw, 2008), manufacturing efficiency and flexibility (Adler et al.,1999), differentiating strategy and low-cost leadership strategy (Porter, 1980,1985,1990), single-loop learning and double-loop learning (Argyris and Schon, 1978), and generative learning and adaptive learning (Senge, 1990). This study argues that this lack of consistency in referring to exploration and exploitation has adversely impacted our understanding of how ambidexterity can be achieved.

2.3 Single Strategy versus Dual Strategy

In his paper, March (1991) emphasises that organisations need to be aligned to both exploration and exploitation activities (dual-strategy approach) because a one-sided focus might be detrimental to organisations. March (1991) argues that relying excessively on exploitation activities is detrimental to organisational performance. According to March (1996, pp.280), "exploiting interesting ideas often thrives on commitment more than thoughtfulness, narrowness more than breadth, cohesiveness more than openness". According to March, exploitive organisations are likely to be effective in the short run because exploitation often leads to early success, which in turn reinforces further exploitation along the same trajectory. Eventually, these organisations fail and get trapped in suboptimal stable equilibria (success trap/ competency trap), and as a result, they will become self-destructive in the long run.

On the other hand, March (1991) posits that firms that excessively rely on exploration are likely to suffer a high cost of experimentation without receiving adequate return because they lack distinctive competencies. Accordingly, Levinthal and March (1993) argue that organisations engaging excessively in exploration activities will never gain the return of their knowledge. Levinthal and March also argue that failure leads to a search for new knowledge and experience which leads to failure which leads to more search and so on, which will eventually lead to a "failure trap". In addition to that, explorative firms might not be able to finance their long term goals and commitments if they cannot make short-term returns (Sinha, 2015), which will make them lose the opportunity to gain economies of scale and economies of scope (Güttel and Konlechner, 2009). Several other scholars warn practitioners from adopting a single-strategy approach (i.e., Mom et al., 2009; Gibson and Birkinshaw, 2004). A consensus exists on the need for firms to develop an organisational capability to balance exploration and exploitation activities (dual focus strategy) (Gallen et al., 2009; Raisch and Birkinshaw, 2008; Levinthal and March, 1993; O'Reilly III and Tushman, 2013; March, 1991; Ojha et al., 2018). The scope of ambidextrous organisations is exhibited in table (1) below.

Alignment of	Exploitative Business	Exploratory Business
Strategic intent	Cost, profit	Innovation, growth
Critical tasks	Operations, efficiency, incremental innovation	Adaptability,new products, breakthrough innovation
Competencies	Operational	Entrepreneurial
Structure	Formal, mechanistic	Adaptive, loose
Controls, Rewards	Margins, productivity	Milestones, growth
Culture	Efficiency, low risk, quality, customer	Risk-taking,speed,flexibility, experimentation
Leadership role	Authoritative, top-down	Visionary, involved

Table (1): Scope of the ambidextrous organisation (O'Reilly III and Tushman, 2004).

2.4 The Tension Between Exploration and Exploitation

Even when organisations recognize the need to adopt a dual strategy to adapt to the changes in their environment, they often fail to respond effectively. Several studies show that most firms fail in the adaptability pursuit, and as a result, they get replaced by other firms. For example, a McKinsey study finds that the average life expectancy of organisations in the S&P 500 dropped from 90 years in 1935 to 30 years in 1975 and dropped again to 15 years in 2005 (O'Reilly III and Tushman, 2008). Moreover, scholars argue that there is no guarantee that large and successful organisations will sustain success in the long run (O'Reilly III and Tushman, 2008). Scholars suggest that long term success requires the development of organisational ambidexterity, which in turn requires managing the balance between the demands of the two opposing strategies of exploration and exploitation, flexibility and efficiency, stability and adaptation, short-term profits and long-term growth (i.e., Raisch and Birkinshaw, 2008; March, 1991). However, considering resource scarcity in organisations, maintaining a balance between the two opposing logics of explorations and exploitation becomes challenging, and consequently, the need for a trade-off emerges and becomes unavoidable (March, 1991; Gupta et al., 2006; Chen, 2017). "The simple idea behind the value of ambidexterity is that the demands on an organisation in its task environment are always to some degree in conflict (for instance, investment in current versus future projects, differentiation versus low-cost production), so there are always trade-offs to be made" (Gibson and Birkinshaw, 2004, pp.209).

The issue of the incompatibility between efficiency and flexibility or between exploitation and exploration can be traced back to the 1960s (Sinha, 2015). Several scholars view exploration and

exploitation as two ends of a continuum (Uotila et al., 2009; Levinthal and March, 1993; Gupta et al., 2006). They argue that the incompatibility between the two activities is due to their goal differences, that is, exploitation is oriented toward short term and daily operational activities that seek to increase efficiency (March, 1991), whereas exploration is oriented toward the long term and strategic activities that seek to increase innovation (Tamayo-Torres *et al.*, 2014). The two activities are also different in their organisational processes, capabilities, structures and culture (Ghemawat and RicartCosta, 1993), variability, timing, risk, distribution, slack accumulation, incentives and alternative investments (March, 1991). Where return in exploitation is viewed as more certain, achievable, and less distant in time, return in exploration is considered less certain and more distant in time (March, 1991; Sinha, 2015). Furthermore, learning capabilities required for exploration are different from those required for exploitation (Ojha *et al.*, 2018). "Because of these differences, adaptive processes characteristically improve exploitation more rapidly than exploration", which results in a higher tendency to adopt exploitation practices (March, 1991, pp.73).

Although prior research such as March (1991) conceptualises exploration and exploitation as two ends of a continuum, proponents of this school of thought argue that the learning activities of exploration and exploitation operate in two orthogonal trajectories, and thus, under certain circumstances, they can be practised simultaneously (i.e., Gupta et al., 2006; Raisch et al., 2009; Raisch and Birkinshaw, 2008). They also argue that the decision to choose one strategy over another is contingent on whether exploration and exploitation compete for resource scarcity and whether the analysis focuses on single or multiple domains. That is, the scarcer the resources in the organisation, the higher the tendency to view exploration and exploitation as mutually exclusive.

Generally speaking, and after reviewing the literature on ambidexterity, it can be concluded that there is a consensus between scholars that balancing exploration and exploitation is beneficial for survival and long-term performance (i.e., Zhang et al., 2018; Uotila et al., 2009; Mom et al., 2009).

2.5 Taxonomy of the Literature Review

The taxonomy of the literature captures the key themes identified from the review of the literature on ambidexterity. The literature on ambidexterity has provided insights into how to manage the conflicting demands of exploration and exploitation at different levels (organisational level, business unit level and individual level). From the review of ambidexterity literature, different schools of thought on the orthogonality and non-orthogonality of exploration and exploitation, as well as recommendations on balancing the demands of the two contradictory logics of exploration and exploitation have been identified, and this includes sequential, structural, and contextual ambidexterity.

The idea behind the sequential ambidexterity is that ambidexterity can be achieved through temporal cycling between long periods of exploitation and short bursts of exploration within the same organisation unit (Gupta et al., 2006). The idea behind the structural separation is that exploration and exploitation can be achieved simultaneously if the organisation allocates separate units for each activity (O'Reilly III and Tushman, 2007). The focus of structural separation is at the organisational level, and it has been predominant in the ambidexterity literature (Gupta *et al.*, 2006). On the other hand, in contextual ambidexterity, the tension between exploration and exploitation is reconciled at the individual level, not at the top-management level as in the structural separation, and the role of the top-management team only lies in developing an organisational context that is based on systems and processes that support employees in balancing the tension between exploration and exploitation and that context is reinforced by a culture that is based on trust, support, stretch and discipline (Gibson and Birkinshaw, 2004). The current debate of contextual ambidexterity suggests that ambidexterity is not usually achieved by the efforts of one individual or a specific team, that is, the top management team, but through collective and continuous efforts of every member in the organisation. The premise of contextual ambidexterity is achieved by enabling individuals to determine how to allocate their time between alignment and adaptability. It has been argued that contextual ambidexterity outperforms structural separation because it eliminates the coordination and transition cost associated with structural separation (Simsek, 2009), and also eliminates the bottleneck issue associated with structural separation (Chen, 2017), which makes contextual ambidexterity a more sustainable model compared to

structural separation. That said, several scholars including Gibson and Birkinshaw (2004) and Chen (2017) suggest that to maintain competitiveness and survival in a market characterised by fierce competition and rapid change, organisations should simultaneously pursue both approaches.

Overall, despite prior research's claim which suggests that within a single domain (i.e., individual or subsystem) exploration and exploitation become mutually exclusive and two ends of a continuum (i.e., Gupta et al., 2006; March, 1991), Mom et al. (2007, 2009) and other subsequent research (i.e., Vallina et al., 2019) empirically find that these suggestions are weak, and thus, ambidexterity can occur at the individual level. Mom et al. (2009) also identified three characteristics of ambidextrous managers: hosting contradictions, multitasking, and knowledge and skills renewal.

This thesis aims to examine ambidexterity at the micro-level by focusing on managerial ambidexterity. Understanding drivers of managerial ambidextrous behaviour is crucial because managers tend to influence other employees' behaviour and actions through their practices (See Mom et al., 2009) which in turn shapes the business-capacity for contextual ambidextrous and eventually leads to superior performance (Gibson and Birkinshaw, 2004). Subsequent studies empirically examine and confirm the positive relationship between contextual ambidexterity and organisational performance (i.e., Wang et al., 2014). Despite the importance of managerial ambidexterity that is increasingly recognised in the literature, a complete understanding of drivers of managerial ambidexterity is, to date, a gap in the literature of ambidexterity (Tempelaar and Rosenkranz, 2019; Mom et al., 2009).

To increase our understanding of drivers of managers' ambidextrous behaviour, the researcher sought to bring together two seemingly different streams of research. The first stream suggests that managers do not operate in a vacuum and that organisational context shapes their capacity to balance exploration and exploitation (i.e., Gobson and Birkinshaw, 2004), whereas the second stream suggests that managers are not equally skilled at all types of mental activities and that managers' skills and characteristics play a key role in shaping their capacity to reconcile the tension between exploitation and exploration (i.e., Mom et al., 2009; Barile et al., 2015; Volery et al., 2015). Figure (1) below shows the taxonomy of the literature reviewed in this thesis.

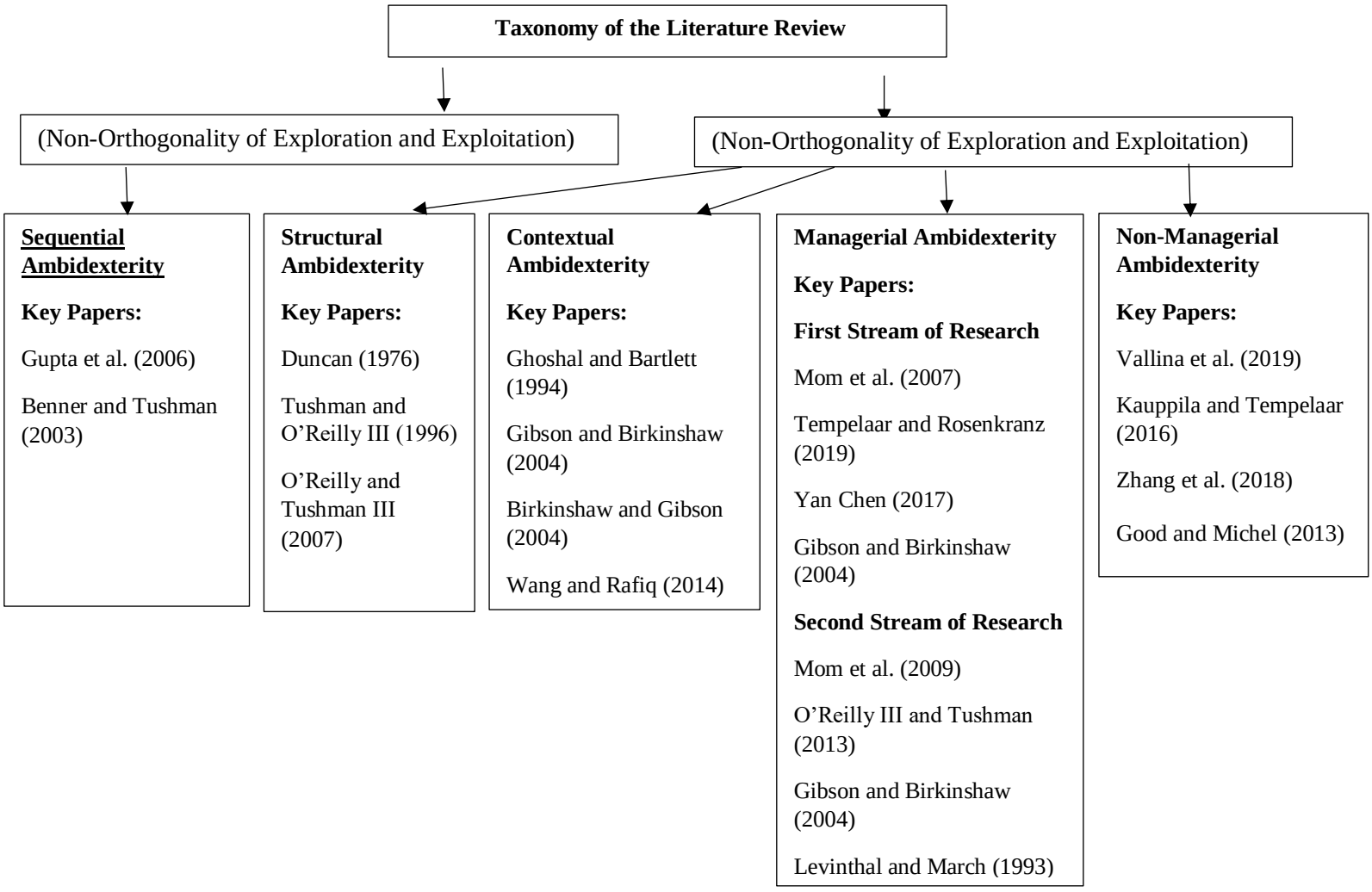

Figure (1): Taxonomy of the Literature Review.

To gain more insights into ambidexterity schools of thought, the following section aims to discuss further how these schools view ambidexterity.

2.6 Ambidexterity Schools of Thought

The research on exploration and exploitation activities (ambidexterity) suggests two forms by which ambidexterity can be achieved. These will now be discussed.

2.6.1 Sequential Ambidexterity (Non-Orthogonality of Exploration and Exploitation)

The first form is called sequential ambidexterity but is also termed temporal, cyclical, and punctuated equilibrium. It refers to temporal cycling between long periods of exploitation and

short bursts of exploration within the same organisation unit (perform exploration and exploitation sequentially) (Gupta *et al.*, 2006). This type of ambidexterity requires the sequential allocation of resources and attention to exploration and exploitation. It also requires changing structures and routines, practices and procedures, reward system, and control (Simsek, 2009; Chen, 2017). Researchers argue that sequential ambidexterity relies on a structural solution that gives the authority to the head of the business unit to decide how best to divide workgroups and working time between exploration and exploitation (Gibson and Birkinshaw, 2004). That said, researchers also argue that sequential ambidexterity reduces the conflict between exploration and exploitation that is associated with resource scarcity and administration (Simsek, 2009).

Scholars link sequential/temporal ambidexterity with cognitive capability. They argue that temporal ambidexterity resembles the limited cognitive capacity of individuals (i.e., managers) to be simultaneously involved in exploration and exploitation activities; therefore, sequential allocation of attention has been viewed as an outcome of bounded rationality and goal conflict (Levinthal and March, 1993). Because managers usually experience bounded rationality, they must rely on simplified representations of the world to analyse information (Simon, 1955). These imperfect representations affect the development of the mental models of managers and the way they frame problems and search for solutions (Tripsas and Gavetti, 2000).

Temporal ambidexterity does not align with the way some scholars view ambidexterity as a simultaneous pursuit of exploration and exploitation; therefore, despite its viability in balancing between the two contradicting demands of exploration and exploitation, it's not considered by them as an approach to ambidexterity (i.e., Gupta et al., 2006; Benner and Tushman, 2003; Gibson and Birkinshaw, 2004). Interestingly, several scholars argue that the temporal approach is more viable than ambidexterity, primarily when the analysis is confined to a single domain (i.e., individual or subsystem) and when exploration and exploitation are conceptualised as two ends of a continuum (i.e., Gupta, 2006; Burgelman, 2002).

The second form is associated with practising exploration and exploitation simultaneously. The research on the orthogonality of exploration and exploitation activities or simultaneous ambidexterity suggests two conditions under which the pursuit of ambidexterity can be achieved. These conditions are structural separation and contextual ambidexterity. These will now be discussed.

2.6.2 Orthogonality of Exploration and Exploitation

The research on the orthogonality of exploration and exploitation activities suggests two forms by which the simultaneity of exploration and exploitation can be achieved. These will now be briefly summarised.

2.6.2.1 Structural Separation

Structural separation, also termed spatial ambidexterity or dual structure, refers to the spatial separation of exploration and exploitation activities. Structural separation involves separating exploration and exploitation activities in organisations (i.e., separate divisions, departments or teams) into two separate units so that some units focus on alignment and exploitation (i.e., sales unit) while others focus on adaptability and exploration (i.e., R&D unit) that are then coordinated by the top management team (Gupta et al., 2006; Simsek, 2009; O'Reilly III and Tushman, 2007; Gibson and Birkinshaw, 2004).

Spatial ambidexterity research has focused on the effect of isolation and decentralization in organisations on encouraging the exploration of new ideas (Fang *et al.*, 2010). The argument supporting this approach believes that exploration and exploitation are entirely different activities and requires different policies, structures, and philosophy. Therefore, if they are left in a single organisational structure (i.e., business unit), they will be competing for corporate resources, resulting in a lack of simultaneous balance between the two contradicting activities. Therefore, scholars argue that the ideal way to accommodate both activities in an organisation is to build different and separate but loosely connected units (Tushman and O'Reilly III, 1996; He and Wong, 2004; Gupta et al., 2006). "These separate units are held together by a common strategic intent, an overarching set of values, and targeted structural linking mechanisms that enable a productive integration of independent efforts" (Simsek, 2009).

Compared to exploration units, exploitation units have to be more centralized and larger in size. Further, to reduce the possibility of influence and minimize knowledge spillover across the two different units, they must be separated physically and culturally (Lavie et al., 2010; Tushman and O'Reilly III, 1996; Gupta et al., 2006)."Structural ambidexterity refers to an organisational design or form containing not only separate structural subunits for exploration and exploitation, but also different competencies, systems, incentives, processes, and cultures for each unit"(Simsek, 2009,

pp. 599). In their study, O'Reilly III and Tushman (2004) argue that it's essential to allocate resources to each unit and ensure that separate processes, systems, and policies are applied in each since the processes and policies applied to reinforce exploitation activities are detrimental to exploration activities.

Another approach that is considered a type of structural separation but focuses on specialisation instead of duality is called reciprocal ambidexterity (Simsek, 2009). Reciprocal ambidexterity suggests that to avoid the resource-allocation tradeoff and the conflicting organisational routines, organisations have to explore in one domain and simultaneously exploit in another and, therefore, the simultaneous balance can be achieved across different domains (Lavie and Rosenkopf, 2006). This approach is based on the argument that some organisations may specialize in exploitation while others specialise in exploration and, as a result, the balance between the two activities is achieved via the market (Gupta *et al.*, 2006). Reciprocal ambidexterity is based on the idea that exploration and exploitation can be achieved through outsourcing or establishing alliances (Raisch and Birkinshaw, 2008). Different types of alliances are formed to pursue different goals, lead to different outcomes, and are best employed at different stages of development (Rothamel and Deeds, 2004). In this scenario, organisations may either form alliances to exploit existing external knowledge or explore new opportunities (Lavie and Rosenkopf, 2006). Moore (2005) argues that if organisations are to "hold hands", then this type of ambidexterity is recommended because, according to him, focus strategy is better than dual strategy. As noticed, reciprocal ambidexterity slightly aligns with Michael Porter's (1985) proposition, suggesting that competitive advantage can only be obtained by adopting a single strategy (cost leadership or differentiation), and any attempt to reconcile the two strategies is considered as being "stuck in the middle".

The real challenge facing senior managers and top executives in structural separation is that they have to integrate the different outputs of each unit, which means they can become the bottleneck of structural ambidexterity, which might be the main cause of its failure (Chen, 2017). On the other hand, in the temporal ambidexterity, senior managers have to repeatedly be involved in reconfiguring the organisation to accommodate the new strategy whenever a switch from one type of strategy to another occurs (Lavie et al., 2010; Chanda et al., 2018).

Scholars have typically viewed ambidexterity in structural terms, resulting in structural ambidexterity remaining the main area of focus in ambidexterity research (Fang et al., 2010; Gupta

et al., 2006; Gibson and Birkinshaw, 2004; O'Reilly III and Tushman, 2013). Enthusiasts of the structural ambidexterity approach empirically examine the relationship between structural ambidexterity and organisational performance. They argue that organisations following this approach tend to be more successful in bringing a new idea, launching new products and services, and boosting sales (i.e., Lavie and Rosenkopf, 2006; Lavie et al., 2010; Fang et al., 2010; He and Wong, 2004; Duncan,1976).

Despite the success that organisations adopting this technique have achieved, several scholars posit that structural separation alone may not be sufficient to assure prosperity, competitiveness, or even survival, especially in a fast-changing environment where organisations, as well as individuals, face conditions of uncertainty and complexities (Simsek, 2009; Gibson and Birkinshaw, 2004; Birkinshaw and Gibson, 2004; Wang and Rafiq, 2014). As a result, attention has shifted from examining ambidexterity at the macro-level to examining it at the micro-level. This shift has been driven by the belief that the tension between exploitation and exploration is best reconciled at the individual level, not only at the top-management level, simply because top executives may face many constraints and limitations (i.e., limited cognitive capability and myopia), and thus, they may become the bottleneck of structural ambidexterity, which may cause structural ambidexterity to fail (Chen, 2017), and also to avoid the coordination cost and problems associated with structural separation and transition cost associated with temporal ambidexterity (Simsek, 2009). This shift has also been driven by the belief that in an era of disruptive change, firms need to speed up their innovation process by building a supportive context that empowers individual employees to act on behalf of their organisations and respond to the change in their task environment by embedding exploration (i.e., depart from the traditional ways of doing things) and exploitation (i.e., operational activities) within their daily routine (maintaining a balance between exploration and exploitation activities), in other words, to be ambidextrous.

In 2004, Gibson and Birkinshaw examined ambidexterity at a business unit level and argued that the tension associated with exploration and exploitation is best achieved at the individual level. Gibson and Birkinshaw's approach to ambidexterity puts forward behavioural and social mechanisms for ambidexterity (bottom-up approach vs top-down approach). They term this realization of ambidexterity "contextual ambidexterity". The literature on contextual ambidexterity is to be discussed in the next section.

2.6.2.2 Contextual Ambidexterity

In an era of disruptive change, firms need to speed up their innovation process by empowering individual employees to respond to the change in their task environment, which requires embedding exploration and exploitation within their daily routine; in other words, to be ambidextrous.

Based on the cultural dimension, few studies attempt to make recommendations to organisations on how the inherent tension between efficiency and flexibility can be reconciled at the individual level of employees, and that includes the creation of a shared vision, recruitment and selection, work training and career path management (Bartlett and Ghoshal,1989), meta- routines, job – enrichment, work training, support and trust in the relationship with management (Adler et al.,1999), decentralized structure, overarching vision and supportive and flexible leaders (Tushman and O'Reilly III, 1996). Gibson and Birkinshaw (2004) argue that these elements are only part of the story because balancing exploration and exploitation requires the development of a particular type of context at the business unit. Combining the above insights on reconciling the inherent tension between exploration and exploitation, Gibson and Birkinshaw (2004) examined ambidexterity at a business unit level and argued that the tension associated with exploration and exploitation can be resolved and best achieved at the individual level. They termed this realisation of ambidexterity "contextual ambidexterity".

Gibson and Birkinshaw (2004) define Contextual ambidexterity as "the behavioural capacity to simultaneously demonstrate alignment and adaptability across an entire business unit". (pp.209). According to Gibson and Birkinshaw (2004), contextual ambidexterity works by building an organisational system or business unit context that encourages individuals to use their own judgment as to how to divide their time between exploitation-oriented activities (i.e., operational activities) and exploration-oriented activities (i.e., depart from the traditional ways of doing things); in other words, to freely conduct exploration and exploitation activities. They view organisational context as a combination of structure context, culture, and a climate of a business unit. According to the authors, contextual ambidexterity can be achieved through the development of supportive organisational context by leaders in a business unit. That said, Gibson and Birkinshaw (2004) argue that superior business unit performance is not obtained primarily through charismatic leadership, nor through strong culture, but by building a carefully selected set of

systems, processes and structures that allow exploration and exploitation to coexist side by side. Their view is consistent with Ghoshal and Bartlett (1994), who define organisational context as systems, processes, and beliefs that shape individuals' behaviour in an organisation.

In the contextual ambidexterity, the tension between exploration and exploitation is reconciled at the individual level, not at the top-management level, as in the structural separation. The role of the top-management team lies only in developing a context that is based on systems and processes that support employees in balancing that tension (Gibson and Birkinshaw, 2004).

Contextual ambidexterity emphasises the vital role bottom-up learning play in organisational development, which has been the main theme in organisational learning literature (i.e., Crossan and Berdrow, 2003; Crossan et al., 1999; Senge, 1990; Sanchez and Heene, 1997), and absorptive capacity literature (i.e., Zahra and George, 2002; Cohen and Levinthal, 1990). The main aim of contextual ambidexterity is to put forward behavioural and social mechanisms for ambidexterity. That said, it must be noted that the vital role of individuals has been highlighted in the structural separation too. In the structural separation, the top management team integrates exploration and exploitation units in the organisation to become ambidextrous, whereas in the contextual ambidexterity, the business unit members are enabled by the organisational context to freely conduct exploration and exploitation activities. The main difference is that contextual ambidexterity suggests that ambidexterity in organisations is not usually achieved through the efforts of one individual and is no longer isolated at the top management team as in the case of structural separation, but through collective and continuous efforts of every organisational member. Thus, research suggest that when contextual ambidexterity is applied in an organisation or a business unit, it means that every single individual in that business unit is contributing to deliver value to current business needs (short- term goal) within their functioning area, while at the same time keeping an eye on new opportunities and seizing these opportunities to address the change in the environment (long- term goal) (Gibson and Birkinshaw, 2004). Further, in contextual ambidexterity, individuals are encouraged to use their own judgment as to how they divide their time between exploration and exploitation and are both rewarded. But in structural ambidexterity, individuals are given clear instructions on what to dedicate their time for and are only rewarded if they comply with these instructions. (Gibson and Birkinshaw, 2004).

Despite the benefits associated with contextual ambidexterity, its implementation is challenging due to the tension that arises when exploration and exploitation within a single domain (i.e., individual and subsystem) compete for scarce resources (Simsek, 2009; Gupta et al., 2006). To overcome this issue, Simsek (2009) suggests having intertwined operating and strategic activities in culture, structure, and system to enable individuals to possess this integrative ability. Furthermore, several scholars emphasize that the development of contextual ambidexterity takes many years (i.e., Adler et al. 1999; Ghoshal and Bartlett, 1994), as it requires a bottom-up approach that ensures the involvement of individuals across levels and hierarchical as part of organisational culture and context (Wang and Rafiq, 2014; Simsek,2009; and Gibson and Birkinshaw, 2004). Table (2) below shows the main differences between structural and contextual ambidexterity.

	Structural Ambidexterity	**Contextual Ambidexterity**
How is it achieved?	Alignment-focused and adaptability-focused activities are done in separate units or teams.	Individual employees divide their time between alignment focused and adaptability-focused activities.
Where are key decisions made?	At the top of the organisation.	On the front line by salespeople, supervisors, office workers.
Role of top Management	To define the structure, to make trade-offs between alignment and adaptability.	To develop the organisational context in which individuals act.
Nature of roles	Relatively clearly defined.	Relatively flexible.
Skills of employees	More specialist.	More generalist.

Table (2): Building ambidexterity into an organisation. (Birkinshaw and Gibson, 2004)

Few scholars argue that contextual ambidexterity is an alternative approach to structural separation. For example, Chang et al. (2009) examines ambidexterity in the context of university spin-off and argue that contextual ambidexterity outperforms structural separation. On the contrary, Gibson and Birkinshaw (2004) and other subsequent studies such as Simsek et al. (2009) explicitly argue that contextual ambidexterity is not an alternative approach to structural ambidexterity; rather, contextual ambidexterity should be viewed as a complement to the structural approach. They also argue that, despite the differences in both approaches, they can both exist simultaneously in an organisation and thus should be investigated side by side.

To examine ambidexterity at the business-unit level, Gibson and Birkinshaw (2004) and Birkinshaw and Gibson (2004) interviewed employees and managers in 41 business units at 10 multinational companies operating in various industries to explore what kind of organisational context that shapes employees' capacity to reconcile the conflicting demands of exploration and

exploitation. In their study, Gibson and Birkinshaw made three suggestions: Firstly, there is no trade-off between alignment and adaptability as successful business units in their study were able to build the capacity to build contextual ambidexterity by aligning themselves around adaptability, and they managed to do this by involving less formality, rather than more formality. Secondly, they suggest that there are multiple paths (equifinality) to ambidexterity. "Depending on the administrative heritage of a given business, and the values of its leaders, equally valid, but slightly different, organisation context solutions can be created". For example, where some ambidextrous business units in their sample build adaptability skills on the top of their traditional model of alignment, other ambidextrous business units focus on adaptability and built alignment around it. Thirdly, consistent with the finding of (Simsek, 2009; Wang and Rafiq, 2014; Mom et al., 2009; Lavie and Rosenkopf, 2006; Tripsas and Gavetti, 2000; Gupta et al., 2006; O'Reilly III and Tushman, 2013) they emphasize the vital role leaders and senior managers play in facilitating contextual ambidexterity by creating a supportive context (Simsek, 2009; Wang and Rafiq, 2014; Mom et al., 2009; Lavie and Rosenkopf, 2006; Tripsas and Gavetti, 2000; Gupta et al., 2006; O'Reilly III and Tushman, 2013).

It must be noted that although Gibson and Birkinshaw (2004) were the first to shed light on the vital role organisational context plays in shaping individuals' capacity to reconcile the conflicting demands of explorations and exploitation, their study focuses on capturing ambidexterity at the business unit level only. Following Gibson and Birkinshaw (2004), several studies highlight the critical role organisational context plays in shaping employees' exploratory and exploitative behaviour. For instance, Kauppila and Tempelaar (2016) posit that employees do not operate in a vacuum, and organisational context may play a vital role in enabling and constraining the cognitive capability of individuals to demonstrate ambidextrous behaviour. Mom et al. (2009) offer a valuable insight into how different types of coordination mechanisms relate to variations in managers' ambidexterity.

Gibson and Birkinshaw (2004, pp.213) also argue that when a supportive organisational context is created, individuals tend to engage in both exploitation-oriented activities (geared toward alignment) and exploration-oriented activities (geared toward adaptability), which will lead to contextual ambidexterity, which subsequently enhances performance. Their suggestion extends

that of Ghoshal and Bartlett (1994), which suggests that a context does not dictate specific types of action; rather, it creates a supportive environment that inspires an individual to do "whatever it takes" to deliver results". Ghoshal and Bartlett (1994) conceptualise organisational context in terms of four behaviour framing attributes: discipline, stretch, support and trust. According to the authors, organisational context is "the way in which the four behaviour-framing attributes of discipline, stretch, trust and support are created and reinforced by a variety of macro and micro-level actions taken by managers at all levels of the organisation" (pp. 96). The authors frame the four attributes (discipline, stretch, support, and trust) as behaviours resulting from a context (indicators) and note that these attributes are interdependent. Ghoshal and Bartlett (1994) "did not argue explicitly that these contextual features will develop the capacity for contextual ambidexterity. Rather, they described discipline, stretch, support, and trust as engendering individual-level behaviour that results in initiative, cooperation, and learning. But according to Ghoshal and Barlett, individuals take these actions of their own volition" (Gibson and Birkinshaw, 2004, pp.213).

Combining these insights and building on organisational context and leadership literature, Gibson and Birkinshaw (2004) argue that organisations could be ambidextrous by building a set of processes and systems that enable individuals to make their own judgment on how to divide their time between exploitation and exploration. The authors suggest that balancing exploration and exploitation requires the development of a particular type of organisational context, and that context is reinforced by a culture that is based on trust, support, stretch and discipline. Gibson and Birkinshaw's (2004) suggestion was built on Ghoshal and Bartlett's (1994) work, but rather than framing the four attributes as indicators of contextual ambidexterity; they frame them as antecedents to contextual ambidexterity. In their seminal papers, Gibson and Birkinshaw (2004) and Birkinshaw and Gibson (2004) suggest that the four elements must be present in the context in order for a business unit to become ambidextrous. Further, their findings reveal that business unit ambidexterity mediates the relationship between the four elements and business unit performance. That said, Gibson and Birkinshaw (2004), Birkinshaw and Gibson (2004), and others like Adler et al. (1999) and Ghoshal and Bartlett (1994) argue that the four elements do not directly create high performance. Therefore, practitioners and scholars will be mistaken if they expect that superior performance can be guaranteed by instituting the four attributes of organisational context.

Rather, the four attributes shape individual behaviour and collective behaviour that in turn shape business-unit capacity to become ambidextrous, which eventually leads to superior performance, and this process takes time. This discussion is consistent with prior research on knowledge transfer which suggests that bottom-up learning plays a vital role in organisational development. From reviewing the literature on knowledge transfer, it has been noticed that bottom-up learning has been the main theme in organisational learning literature (i.e., Crossan and Berdrow, 2003; Crossan et al., 1999; Senge, 1990), and absorptive capacity literature (i.e., Zahra and George, 2002; Cohen and Levinthal, 1990). For instance, Argyris and Schon (1978) and Senge (1990) suggest that although an organisation is not merely a collection of individuals, yet organisations only learn through the experience and actions of their individual employees. Although they posit that the level of complexity increases when we go from an individual level to a higher level (i.e., groups and organisation), and that's because issues associated with motivation for change and challenging the status quo become more complicated as we go higher in the level of analysis, individual learning experience affects learning at the group level which in turn affects organisations' mental models. A review of the four attributes of organisational context that affect individuals' capacity to engage in exploitation and exploration as discussed by Gibson and Birkinshaw (2004) is presented below below.

Discipline. It refers to organisational and cultural standards that encourage individuals to voluntarily meet all expectations generated by their explicit and implicit commitments (Gibson and Birkinshaw, 2004). According to Ghoshal and Bartlett (1994) and Gibson and Birkinshaw (2004), three underpinnings contribute to discipline in organisations. First, a clear set of standards for performance and conduct. According to the authors, clear standards of performance ensure more commitment to business unit goals. Second, a system of open, candid, and rapid feedback. Quality of feedback creates openness between organisational members. Third, a consistency in the application of rewards and sanctions.

Stretch. It refers to organisational and cultural attributes that induce individuals to voluntarily strive for more, rather than less, ambitious objectives. This involves the development of a "collective identity", the establishment of "shared ambition", and the development of "personal meaning" so that individuals have a clear understanding of how their task contributes to the overall goals and performance of the organisation, which creates a sense of involvement and commitment

between employees (Ghoshal and Bartlett, 1994; Gibson and Birkinshaw 2004). It is also argued that stretch influences the aspiration level of employees throughout the organisation in all kinds of activities. Stretch occurs when employees are given the opportunity to increase the bar of their task line (Ghoshal and Bartlett, 1994).

Support. It's an attribute of context that induces employees to lend assistance and countenance to others. A supportive environment that allows employees to access organisational resources available to other members, encourages initiatives, especially at the lowest hierarchical levels, and provides guidance and support to organisational members without doing so in an overly authoritarian fashion (Gibson and Birkinshaw, 2004; Ghoshal and Bartlett, 1994).

Trust. It's an attribute of context that induces employees to rely on commitments of each other. Only a few scholars examine the relationship between trust and individual ambidexterity. For instance, Zhang et al. (2018) empirically found that individuals 'skills in building trust are positively associated with individual ambidexterity. Three attributes contribute to trust in organisations. First, fairness and equity of the decision-making process. Second, individuals' ability to be involved in the decision-making process, specifically those that affect them, will increase their commitment and involvement. Third, staff positions with employees who possess required capabilities contribute to the establishment of trust (Gibson and Birkinshaw, 2004; Ghoshal and Bartlett, 1994). According to Adler et al. (1999), the three attributes of a high-trust organisation are consistency, competency, and congruence.

Gibson and Birkinshaw (2004) faced difficulties in identifying four distinct constructs using the four attributes, and instead, they plotted the four attributes of contextual ambidexterity and combined them into two dimensions: performance management (a combination of discipline and stretch) and social support (a combination of support and trust). The first dimension is concerned with making employees accountable for their actions and inducing employees to deliver high-quality results, whereas the second dimension is concerned with providing employees with latitude and security to perform. According to Gibson and Birkinshaw, "… factor analysis revealed that it was not possible to identify four distinct constructs using these items. Instead, two factors were identified" (pp. 217).

The main reason for their inability to identify four distinct constructs and combine them into two instead is their failure in drawing a line between the four elements, and that's due to the

interdependency of these four elements. For instance, Gibson and Birkinshaw (2004) argue that when organisations trust their employees, employees tend to stretch their work and look for opportunities beyond their task lines. In line with this, Haj Youssef and Christodoulou (2017) empirically find that uncertainty tolerance has a positive and significant effect on managerial discretion. Additionally, the researcher believes that what made identifying four distinct constructs even more challenging is the fact that Gibson and Birkinshaw (2004) did not clearly define the four elements of organisational context, and as a result, they failed to identify specific contents for each element, which resulted in a single behaviour or action to be classified under more than one element. Refer to chapter (3) to learn how the researcher sought to overcome this issue and identify four distinct constructs using the four attributes. The following section sheds more light on Gibson and Birkinshaw's (2004) framework and the interdependency between the four elements (discipline, stretch, support, and trust).

2.6.3 The Interdependency between Discipline, Stretch, Support, and Trust

Gibson and Birkinshaw (2004, pp.214) argue that "discipline, stretch, support, and trust are interdependent, complementary features of organisational context that are not substitutable, and therefore all four must be present in order for a business unit to become ambidextrous, and subsequently, to perform well". In other words, the strong existence of each element will create a high-performance context. Birkinshaw and Gibson (2004, pp.51) also argue that "social support and performance management are equally important and mutually reinforcing". That is, "more stretch cannot substitute for a lack of trust. Likewise, more support cannot substitute for a lack of discipline" (Gibson and Birkinshaw, 2004, pp.214) (see figure 2 below).

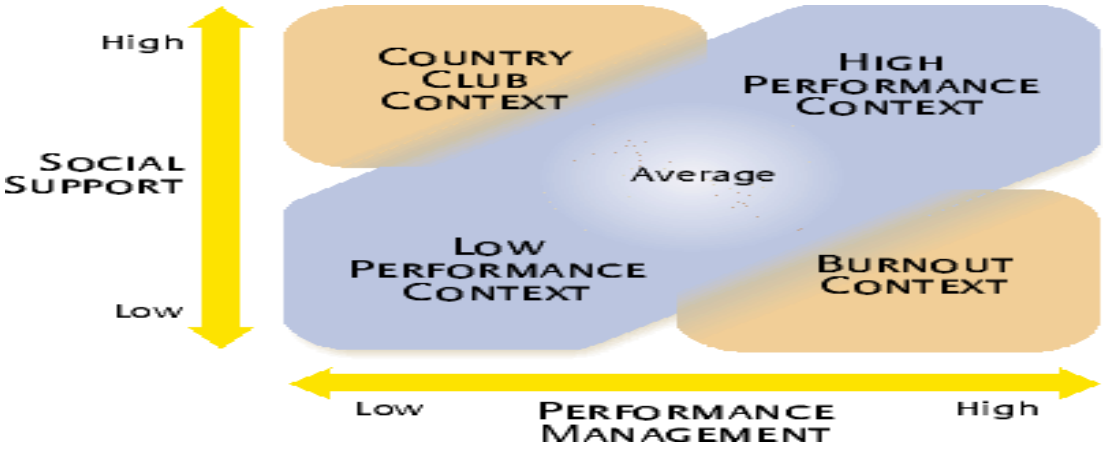

Figure (2): Building ambidexterity into an organisation. (Birkinshaw and Gibson, 2004).

Gibson and Birkinshaw (2004) and Birkinshaw and Gibson (2004, pp.51) emphasise that too much emphasis on either pair (social support or performance management) creates an imbalance between alignment and adaptability. For example, too much emphasis on performance management (discipline and stretch) indicates that social support (trust and support) is either not put in place or neglected creates a "burnout" context in which employees will perform well for a short period but because of its "depersonalised, individualistic, and authority driven-nature" it will eventually lead to high employees turnover, which makes ambidexterity difficult to achieve. Performance suffers in this context because exhausted employees lack the incentives nor the capacity to perform and innovate. In line with this, several scholars posit that handling work stress is a critical problem that threatens organisations in a rapidly changing environment (Pulakos et al.,2000). For instance, Zhang et al.(2018) empirically examine individual ambidexterity and find that individuals' skills in handling work stress in performance management and their ability to build trust for social support result in obtaining individual ambidexterity, and consequently gain superior individual performance.

Gibson and Birkinshaw (2004) also argue that too much emphasis on social support (trust and support) creates a "country club" context in which there is a great sense of support and trust which makes employees enjoy a "collegial environment". But in this context, no one works hard enough because they lack the potential to push boundaries, which results in difficulties in achieving ambidexterity, and performance is just average. The worst scenario is when there is a lack of both social support and performance management, they call it "low-performance context". In this context, ambidexterity cannot be achieved because employees are neither aligned nor adaptable.

Following Gibson and Birkinshaw (2004), several studies highlight the vital role organisational context plays in shaping business-unit capacity for contextual ambidexterity and consequently obtaining superior performance. However, none of these studies verifies the accuracy of the four themes of contextual ambidexterity proposed earlier by Gibson and Birkinshaw (2004) (Zhang et al., 2018). Instead, most of these studies focused on examining the impact of HRM and management practices in facilitating organisational ambidexterity. For instance, Malik et al. (2017) find evidence that creating a culture of trust, openness, risk-taking, and employee empowerment supported by training and a combination of intrinsic and extrinsic rewards is vital for facilitating contextual and subsequent innovations in healthcare in India. In a different context and drawing

on data from 150 UK and 242 Chinese high-tech firms, Wang and Rafiq (2014) find a significant relationship between ambidextrous organisational culture (consisting of shared vision and organisational diversity) and new product innovation. The authors also find that shared vision and organisational diversity are antecedents to contextual ambidexterity, and they both mediate the relationship between ambidextrous organisational culture and new product innovation outcomes.

Overlooking the role the four elements of organisational context play in shaping individuals' capacity to balance exploration and exploitation resulted in the lack of understanding of how individual ambidexterity is achieved. This study seeks to fill this gap in the literature and advance our understanding of the vital role the four elements play in shaping the exploratory and exploitative behaviour of individuals. This research aims to verify the accuracy of Gibson and Birkinshaw's (2004) framework. That said, rather than capturing ambidexterity at a business unit, this study seeks to take the analysis further to a lower level by exploring how the four elements of organisational context shape the ambidextrous behaviour of managers.

2.6.4 Scope of Contextual Ambidexterity

Contextual ambidexterity can be studied at the individual, unit, and organisational levels (Gibson and Birkinshaw, 2004; Birkinshaw and Gibson, 2004; Zhang et al., 2018). That said, it must be noted that examining ambidexterity at a unit or organisational level is different from examining it at the individual level. That is, both the context of a unit or organisational ambidexterity reflects ambidextrous culture (Gibson and Birkinshaw 2004; Mom et al., 2007), whereas individual ambidexterity is a function of interrelated individual and organisational effect, and therefore business unit or organisational ambidexterity is not the sum of its members' personal ambidexterity (Raisch *et al.*, 2009). Scholars argue that to succeed in explaining individuals ambidexterity, organisational factors have to be considered alongside personal characteristics (i.e., Raisch et al., 2009). The literature review on contextual ambidexterity reveals that most studies on ambidexterity focus on the unit and organisational level only (i.e., Simsek, 2009; Wang and Rafiq, 2014; Gibson and Birkinshaw, 2004). An issue that is noted in the literature of contextual ambidexterity highlights a gap for further research.

2.7 Managerial Ambidexterity

Several studies emphasise the critical role of managers in pursuing organisational ambidexterity (i.e., Uotila et al., 2009; O'Reilly III and Tushman, 2004). It was argued that ambidextrous firms need ambidextrous managers (O'Reilly III and Tushman, 2013). Only then, firms will be able to avoid being trapped in suboptimal stable equilibria, to differentiate themselves, to create and recombine resources in novel ways, and to stand out in situations of rapid change (O'Reilly III and Tushman, 2013; Mom et al., 2009). Similarly, O'Reilly III and Tushman (2013) posit that for ambidexterity to take place at the organisational level, leaders must orchestrate alignment and adaptability. They also argue that exploitation and exploration become more important when they refer to how firms and managers deal with threats to firms survival. According to them, "the long-term survival of the firm is the sine qua non of organizational ambidexterity" (pp.15). Further, Helfat and Peteraf (2015) emphasise that some managers may have dynamic managerial capabilities with which to build, integrate, and reconfigure organisational resource and capabilities. Few studies empirically examine and confirm the relationship between dynamic managerial capabilities and the strategic direction of the organisation (how it decides to respond to the change in the environment) (i.e., Teece, 2017; Helfat and Peteraf, 2015). A recent study (Mom et al., 2019) reveals that the bottom-up relationship between managers' ambidexterity and organizational ambidexterity is contingent on firm opportunity-enhancing HR practices.The literature also sheds light on the role played by managers in influencing their organisational culture and other employees' practices through their behaviour (i.e., Kotter and Heskett, 1992). That said, it has been argued that managers' degree of control over an organisational culture is very limited compared to their control over structures, systems, and people (i.e., Schwartz and Davis, 1981).

After reviewing literature on manager's ambidexterity and dynamic managerial capabilities literature it can be concluded that the literature on both capabilities raises many questions that revolve around the following question: how can leaders manage the inevitable conflict between alignment and adaptability? To date, this question is yet to be answered and that is due to the paucity of conceptual and empirical studies on managerial ambidexterity (Mom et al., 2009; Wang and Rafiq, 2014; Tempelaar and Rosenkranz, 2019). To fill this gap in the literature, scholars' attention must shift to examine how the balance between adaptability and alignment is reconciled

at the individual level of managers (Mom et al., 2009; Wang and Rafiq, 2014; Gupta et al., 2006), and preferably focus on qualitative and in depth-studies (O'Reilly III and Tushman, 2013).

Gibson and Birkinshaw (2004) examine ambidexterity at the business-unit level and provide new insight into how organisational context shapes individual behaviour, which in turn shapes collective behaviour and increases business unit capacity for contextual ambidexterity, which eventually leads to superior performance. Although Gibson and Birkinshaw were the first to examine managerial and non-managerial ambidexerity and to the role organisational context plays in shaping it, it was Mom et al. (2007, 2009) who empirically examined ambidexterity at the individual level of managers. Shifting the attention from examining ambidexterity at the organisational and business unit levels to examining it at the micro level (i.e., managers) is based on a current debate which suggests that ambidexterity in organisations is not usually achieved through the efforts of one individual; neither is isolated at the top management team as in the case of structural separation, but through collective and continuous efforts of every organisational member. Mom et al. (2009) build on the contextual ambidexterity literature that deals with the influence of supportive environment on managers' capacity to reconcile the conflicting demands of exploration and exploitation. They define ambidexterity at the manager level as "a manager's behavioural orientation toward combining exploration and exploitation related activities within a certain period of time" (pp.812). Mom et al. (2009) offer valuable insight into how different types of coordination mechanisms relate to variations in managers' ambidexterity. They also argue that "managers differ in the extent to which they are ambidextrous. Whereas some are not ambidextrous because they focus on either exploration or exploitation, others are ambidextrous because they engage in high levels of both exploration and exploitation related activities" (pp. 823).

The importance of Mom's study lies in refuting previous suggestions which argued that it's very difficult for individuals to excel at both exploration and exploitation because within a single domain (i.e., individual or subsystem), exploration and exploitation become mutually exclusive and two ends of a continuum (i.e., Gupta et al., 2006). Mom et al. (2009, pp.823) find that "these difficulties are not insurmountable". That said, Mom and his colleagues were criticised for their failure to shed light on how the differences between managers affect their capacity to reconcile the conflicting demands of exploration and exploitation, and that is due to their focus on the behavioural actions of those who are managing the exploration/exploitation dilemma (Good and

Michel, 2013). Furthermore, the study of Mom and his colleagues was quantitative oriented, and thus they did not allow us to see the world from the micro-viewpoint of practitioners.

2.8 Drivers of Ambidextrous Behaviour

"When we understand the antecedents of operant behaviour, we have information on the circumstances in which the behaviour was reinforced and the circumstances in which the behaviour was not reinforced or was punished" (Miltenberger, 2008, pp.143). As discussed, Mom et al. (2007, 2009) were the first to explore ambidexterity antecedents in a broader organisational context. Research on drivers of ambidextrous behaviour can be classified into two streams. The first stream is dedicated to exploring how organisational context shapes the capacity of individuals to demonstrate ambidextrous behaviour (i.e., Gibson and Birkinshaw, 2004; Mom et al., 2009; Tushman and O'Reilly III, 1996, Vallina *et al.*, 2019; Zhang et al., 2018). The second stream of research focuses on examining skills and characteristics that increase an individual's capacity to excel at reconciling the conflicting demands of exploration and exploitation (i.e., Barile et al., 2015; Volery et al., 2015).

Despite the different approaches adopted in these two streams, they both aim at answering the following question: What makes an individual ambidextrous? When explaining individuals ambidexterity, organisational factors have to be considered alongside personal characteristics (Raisch et al., 2009). To advance our understanding of managerial ambidexterity, the next section sheds light on abilities and drivers that contribute to managerial ambidexterity, as discussed in the two streams mentioned above.

2.8.1 Decision-Making Authority

Decision-making authority is about the extent to which managers have authority over how to react and respond to the needs of their task environment (Atuahene-Gima, 2003; Mom et al., 2009). Prior research examines the relationship between autonomy to act and decision-making authority and argues that autonomy to act is associated with decision-making authority. For instance, Rotter (1966) finds that those who believe that they have control over events around them are found to enjoy a high level of discretion. Contrary to this, those who believe that events are beyond their control tend to suffer from a narrowed array of alternative actions.

Mom et al. (2009) empirically examine the relationship between decision-making authority and managerial ambidexterity and find that managers' decision-making authority is positively related to their ambidexterity. Related to this, increased decision-making authority increases managers' ownership of tasks and decisions, which gives them the freedom to divide their time between exploration and exploitation (Adler et al., 1999; Gibson and Birkinshaw, 2004). In addition to that, scholars argue that increasing managers' decision-making authority increases their tendency to seek solutions to problems within and outside existing strategy and beliefs (Sheremata, 2000). Furthermore, when decision-making authority increases, managers start to rely on their expertise rather than on current rules and the expertise of their superior managers, and this will make managers want to refine and develop new knowledge, skills, and expertise (Crossan and Berdro, 2003).

Research also examines the relationship between the formalisation of managers' tasks and learning. The research finds that increasing the formalization of managerial tasks makes managers less receptive to decision-making stimuli that are not within the framing of the current system (Cyert and March, 1963), increases managers' sense of isolation, and reduces managers' motivation to cooperate and combine their efforts with others (Organ and Greene, 1981). Prior research also finds that an increase of formalisation of tasks requires developing knowledge and expertise in a narrow area, which results in managers having deep knowledge and expertise in a specific area that lies within their task line only. As a result, it becomes difficult for those managers to broaden their knowledge that is beyond their task lines (Adler et al., 1999), i.e., to be more generalists rather than more specialists (Gibson and Birkinshaw, 2004), which in turn reduces their ability to act beyond the narrow confines of their jobs (Adler et al., 1999). Contrary to this, Mom et al. (2009), and in the context of managerial ambidexterity, empirically examine the relationship between the formalisation of managerial tasks and managerial ambidexterity and find that the formalization of managerial tasks is not associated with managers' ambidexterity. According to them, formalised routines and procedures increase the flow of information that managers receive, which improve the speed and the quality of decision-making and introduce change.

2.8.2 Knowledge Transfer

In the context of knowledge acquisition, previous studies on organisational learning indicate that the acquisition of knowledge is a primary mechanism by which not only organisations but also

organisation members learn from each other. This learning may be either explorative-oriented or exploitative-oriented (March, 1991; Mom et al., 2007). Studies find that exploration and exploration at the manager level are facilitated by vertical knowledge flow, i.e., top-down, and bottom-up knowledge inflow (i.e., Floyd and Lane, 2000; Sanchez and Heene, 1997) and by horizontal knowledge flow (i.e., Schulz, 2003; Nonaka, 1994). From reviewing the literature on knowledge transfer, it has also been noticed that bottom-up learning, which plays a vital role in organisational development, has been the main theme in organisational learning literature (i.e., Crossan and Berdrow, 2003; Crossan et al., 1999; Senge, 1990), and absorptive capacity literature (i.e., Zahra and George, 2002; Cohen and Levinthal, 1990). Despite the vital role knowledge plays in exploring new possibilities for coping with changes in the business environment – which, in turn, paves the way for ambidexterity to take place – knowledge in the context of ambidexterity has been neglected in the literature (Mom et al., 2007), especially research that integrates bottom-up learning with ambidexterity (Wang and Rafiq, 2014).

To fill this gap in the literature, Mom et al. (2007) investigated the importance of intra-knowledge acquisition from other individuals in the organisation on managers' tendency to demonstrate ambidextrous behaviour. The focal point of the analysis in their study is knowledge inflows that are associated with the receiver of information. In their study, Mom et al. (2007) made two fundamental contributions to the ambidexterity literature. Firstly, they find that top-down knowledge inflows of managers do not relate to their exploration activities, but rather positively relate to their exploitation activities. Secondly, they find that managers' bottom-up and horizontal knowledge inflows do not relate to their exploitation activities, but rather positively relate to their exploration activities.

Mom et al.'s (2007) findings align with that of prior research, which suggests that top-down knowledge inflow of managers is likely related to their exploitation activities and is unlikely to be related to their exploration activities, which is due to the nature of top-down knowledge inflow. For instance, scholars argue that the scope of the top-down knowledge tends to be unambiguous, narrow, and strictly related to the recipient's specialised area of expertise, which results in increased reliability rather than variety in experience (Schulz, 2003; Winter and Szulanski, 2001). It has also been argued that senior managers can influence lower-level managers' tendency to incline towards exploration activities by other means. For example, senior managers can provoke

exploration activities in the organisation by increasing participation of lower-level managers in decision-making and decrease the formalizations of managerial tasks (Duncan, 1976; Tushman and O'Reilly III, 1996), implementing a cross-functional interface (Mom et al., 2007), developing a culture that is based on openness and allowing deviant views to persist, and challenge the status quo of the organisation (Sanchez and Heene, 1997; O'Reilly III and Tushman, 2004; Day, 2002).

Mom et al.'s (2007) findings also align with prior research findings associated with bottom-up and horizontal knowledge, which suggest that this type of knowledge is a source of exploratory learning. They argue that bottom-up and horizontal knowledge add new knowledge to the recipients' existing knowledge because this type of knowledge does not relate to the depth of the managers' existing knowledge, but rather to the breadth of their knowledge. The authors also argue that this knowledge will increase the variety of managerial experience because it is associated with unfamiliar and unexpected problems that lower-level managers (i.e., front line managers) confront daily. Therefore, bottom-up knowledge may provoke the recipients of that knowledge to question their current beliefs, challenge the status quo and subsequently engage in exploration-related activities (Mom et al., 2007; Argyris, 1977; Sun and Scott, 2003; Day, 2002).

In this regard, in a more recent study, Mom et al. (2009) find that both the participation of managers in cross-functional interfaces and the connectedness of managers to other organisation members across hierarchical levels positively relate to managers' ambidexterity, because they both enable managers to refine their current knowledge and acquire a new one. Mom et al. (2009) findings align with prior research, which suggests that participating in cross-functional interfaces increases trust between managers and other organisational members (i.e., Adler et al.,1999) and offers the opportunity to refine and exchange knowledge that is unrelated to their existing knowledge and expertise (Jansen et al.,2005), and as a result increases their ambidexterity (Mom *et al.*, 2009).

Albeit not within the context of ambidexterity, several scholars emphasise the vital role the exchange of knowledge plays in the development and innovation processes, especially in a fast-changing environment where organisations and individuals face conditions of uncertainty and complexities. They emphasise the need to shift to the knowledge economy, which calls to minimise source inefficiency, such as physical slack, to intangible slack, which is considered a source of cognitive flexibility (Barile et al., 2015). For instance, literature on absorptive capacity indicates that maintaining competitiveness in a dynamic and changing marketplace requires firms to

recognise the value of new, external information, assimilate it, and apply it to commercial ends. They refer to this capability as "absorptive capacity" (i.e., Cohen and Levinthal, 1990; Zahra and George, 2002). Although firms' absorptive capacity depends on the absorptive capacity of its employees (Cohen and Levinthal, 1990), the focus of this literature was to a great extent limited to examining the important role alliances play in transferring knowledge and experience between organisations and how that impacts on their innovation and performance (i.e., Lavie and Rosenkopf, 2006; Lane and Lubatkin, 1998). Thus, examining how individual characteristics contribute to the development of firm absorptive capacity was neglected in this literature, and only recently, the micro-foundations of absorptive capacity have managed to make their way into mainstream absorptive capacity studies. For instance, based on data from 871 core-knowledge employees in 139 high-technology firms, Yao and Chang (2017) find that learning goal orientation of employees, their tendency to seek improvements in employees' competence and to understand or master new things positively contribute to a firm's absorptive capacity. Relative to the traditional view that organisations learn by hiring people with distant knowledge (March, 1991), Jain (2016) investigates the relationship between hiring and the ability of firms to evolve their knowledge as they age. The author argues that as organisations age, they become less responsive to the needs of their external environment (rigid), resulting in a trend for them to become obsolete. Jain's (2016) study reveals three dimensions in which hiring affects organisations: it disrupts routine and encased learning, introduces distant expertise, and facilitates socialization.

Building upon the definition of dynamic capabilities as defined by (Teece *et al.*, 1997, pp.516) as "the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments", and through the lens of systems thinking, the Viable System Approach (VSA) investigates the conditions of prosperity and survival of organisations in a changing environment (Barile, 2015). "The VSA provides a model which integrates the notions of capabilities and competencies and is useful to investigate the viable system's knowledge endowment as an information variety, and knowledge exchange among viable systems as a 'learning by interaction' process" (Barile, 2015, pp. 1183). The enthusiasts of the VSA argue that, although specialisation and training programmes have produced highly skilled individuals that are capable of dealing with familiar problems, they are, however, incapable of addressing emerging and changing needs. Studies on the VSA explore the organisational environment and knowledge endowment required to shape 'T-shaped' innovators in organisations. According to these studies,

T-shaped professionals tend to possess vertical competencies in specific fields and disciplines (I-shaped competencies), such as technological and industrial specialization, and horizontal capabilities (cross the boundaries between disciplines) to deal with different problematic contexts and emerging problems effectively. According to this stream of research, horizontal capabilities and vertical competencies are complementary (Barile et al., 2015), and the presence of T-shaped innovators, especially managers and professionals, is vital to organisations because it equips them with cognitive richness ((Barile *et al.*, 2012; Barile et al., 2015), necessary variety (Barile et al., 2012), and allow individuals, groups, and organisations to exploit and explore new knowledge needed to cope and adapt to changes in the environment (Golinelli, 2010). Additionally, based on the VSA and in the context of the service economy, Barile et al.(2015) attempt to explore the skills required to pursue innovation in the service economy. They suggest five horizontal capabilities that characterise T-shaped innovators and are deemed helpful for flexibility and adaption to change: wishful thinking, lateral thinking, open-minded gifts, knowledge-seeking capabilities, and social intelligence.

2.8.3 Incentives

In the context of contextual ambidexterity, several researchers link exploration and exploitation with rewards and incentives. For example, Ederer and Manso (2013) and Manso (2011) suggest that organisations should use different incentive structures to reinforce exploration and exploitation. They also posit that pay for performance reinforces exploitation activities only and may impede exploration activities. On the contrary, the majority of well-established firms tend to adopt pay for performance schemes only (i.e., commission and profit-sharing). According to Chen (2017, pp.390), pay for performance "motivates employees to pursue pre-specified goals but discourages the exploration of new possibilities, especially those that are not directly linked to existing goals". In this regard, the former CEO of IBM emphasises that senior teams need to be rewarded on the organisational performance and not on their business unit performance if the firm aims at maintaining long-term performance. This is because at IBM they found that, when senior managers were rewarded on their business unit performance, there was a tendency between them to focus on short-term goals (Harreld et al., 2007).

In general, firms tend to focus their attention on what is creating the most value for them. Because exploration is associated with uncertainty, risk-taking, and early failure, there is a good reason for them to give it less attention. Therefore, in their attempts to eliminate uncertainty and risk, firms tend to hold employees accountable for their performance. Holding employees accountable for their performance discourages employees from taking risks and exploring what is yet to be unknown (Cope, 2003). Several scholars suggest that organisations must craft their incentives structures to accommodate both exploitation and exploration, and this can be obtained when employees' wages and prospects are protected, especially when exploration leads to disappointments (i.e., Chen, 2017). Furthermore, practitioners should start to adopt incentive structures that tolerate early failure and reward long-term success (Chen, 2017; Ederer and Manso; 2013; Manso 2011). According to Chen (2017), tolerance for early failure is exactly what organisations need to succeed in their breakthrough pursuit. The following section sheds more light on tolerance for early failure, as discussed in the literature.

2.8.4 Tolerance for Early Failure

Tolerance for early failure is an element of trust that was examined in Gibson and Birkinshaw (2004). According to Gibson and Birkinshaw (2004), trust emerges in organisations when individuals are not being punished for well-intentioned failure, and that can only occur when organisations treat failure as a learning opportunity, not something to be ashamed of. Several scholars, albeit not within the context of ambidexterity, argue that errors and failures can stigmatise individual and organisational reputations (Dahlin et al., 2018). Hence they are often associated with negative emotions like fear, guilt and self-worth (Kiekkas, 2011; Steuer and Dresel, 2015). Therefore, in their bid for promoting change and adaptability, managements have to suppress the fear associated with failure by building a culture of support and trust (a learning environment) that reduces negative emotions associated with failure, and this can be obtained when managements start treating failure as a learning opportunity (a means for innovation) (see Steuer and Dresel, 2015; Putz *et al.*, 2012). According to Chen (2017), there are two types of failure, the productive one and the non-productive one, and in their pursuit to avoid failure, firms often eliminate the productive one and lose the opportunity to produce breakthroughs.

Some of the most successful organisations have managed to turn failure, which is usually a result of appropriate risk, into a corporate success because they believe failure is the key to success. They also believe that failure is an inevitable byproduct of trying new things (see Daneels, 2008). Therefore, instead of restricting their employees from exploring what is unknown, they tend to not only tolerate failure but to celebrate it. Exploring what is known is associated with double-loop learning, which starts when the focus is devoted to changing the individual mindset that leads to questioning governing variables and altering the organisation's deeply held assumptions and beliefs (Argyris, 2004; Argyris and Schön, 1996). For instance, Tata, one of the biggest automobile manufacturing companies in India, has introduced a 'Dare to Try' award for its employees. Similarly, Proctor and Gamble have introduced a 'Heroic Failure' award which is awarded to employees and teams that manage to gain the most insight from their failure (Moffat, n.d.). Some organisations extend their policy of failure to employees development and career. For instance, PSS/World Medical does not treat failure harshly and encourages exploration in several ways. They have introduced a 'Soft Landing' policy which encourages employees to try out a new job position, but if they fail in meeting the goals of that position after a good faith effort, they can have their former position back (Pfeffer and Sutton, 2000). What is common among these organisations is that they learn how to appreciate failure by linking it to incentives and awards.

Contrary to this, in his popular Ted Talk, Dan Pink (2009), as cited in Chen (2017), advised organisations and practitioners to refrain from rewarding exploration. According to him, rewards crowd out intrinsic motivation and may impede exploration. This suggestion aligns with prior research, albeit not within the context of ambidexterity, which argues that extrinsic motivational interventions (i.e., reward systems) negatively affect employees' intrinsic motivation towards creativity (i.e., Woodman et al., 1993). Similarly, according to Vroom (1965), more intrinsically motivated employees may seek to do well in their jobs even if their performance output is not linked to extrinsic rewards. In a more recent study and within the context of ambidexterity, Kao and Chen (2016) empirically examine the relationship between work motivation and ambidextrous behaviour among frontline service employees. Their results reveal that the relationship between intrinsic motivation and individual ambidexterity is moderated by proactive personality, extrinsic rewards, and emotional intelligence. Their study also reveals that frontline employees who are intrinsically motivated are more likely to demonstrate ambidextrous behaviour, which in turn

improves their service performance. Interestingly, the study finds that employees who are extrinsically motivated tend to be more ambidextrous when their intrinsic motivation is weak.

The research on work motivation operates in two directions: intrinsic motivation, which refers to doing an activity for its inherent satisfaction and the enjoyment it provides, and extrinsic motivation, which refers to doing an activity for the sake of rewards it offers (Deci and Ryan, 1985). Despite the importance of examining the relationship between the two types of work motivation and individual ambidexterity, little is known about this relationship. After reviewing the literature on individual ambidexterity, it has been noticed that the vast majority of research in this stream either overlooks the difference between intrinsic and extrinsic rewards or solely focuses on extrinsic motivation. For instance, Gibson and Birkinshaw (2004), in their attempt to examine the relationship between performance management and ambidexterity, fail to draw a line between the two types of work motivation. Subsequent research, such as Kao and Chen (2016), sought to fill this gap in the literature, but their study focuses on examining front-line employees only. Generally speaking, the literature review reveals a dearth of research that examines how the two types of work motivation shape individual ambidexterity, which is considered a promising direction for future research.

The literature on error climate distinguishes between errors and failures. From reviewing the literature on error climate, it can be classified into two streams. The first one aims at helping managements detect early errors to avoid catastrophic failures (i.e., Madsen and Desai, 2010) or operational failures (i.e., Henderson and Stern, 2004), and this can be achieved when employees are not afraid of admitting their failure or deviation once occurs. According to this stream, errors result from the incorrect execution of tasks and routines. Errors within this stream can be classified into three types: rule-based errors, skill-based errors, and knowledge-based errors (Rasmuseen, 1982). Errors can also be classified into action-based errors and decision-based errors (Lei et al., 2016).

The second stream of research draws on entrepreneurial learning from failure and aims at explaining how prior business failure leads to successive new started businesses or innovation. According to this stream, failures are undesired performance outcomes (Dahlin *et al.*, 2018). Studies belong to this stream examine failure at the organisational level (macro-level analysis) and

view failure as an integral part of exploration and innovation, and argue that learning from failure is far from straightforward, hence why it requires a culture that not only accommodates failure but also encourages it (i.e., Khanna et al., 2016; Eggers, 2012). For instance, AmanKwah-Amoah *et al.* (2018), using multiple case studies of entrepreneurs in Sub- Sahara Africa, find four distinctive phases of post entrepreneurial business failure: grief, transition, formation, and legacy. Khanna et al. (2016) explore under what conditions firms operating in the pharmaceutical industry learn from their small failures in experimentation and find that number, importance, and timing of small failures are associated with a decrease in R&D output, but an increase in the quality of that output. Danneels (2008) view tolerance for early failure as an organisational antecedent of second-order competency (the ability of a firm to engage in exploration activities), which paves the way to acquire new competencies. The author argues that the higher the tolerance for early failure, the higher the firm's marketing and explorative activities.

The literature on errors and the literature on failures are interrelated. For instance, many of their findings overlap and tend to use the exact definition for errors and failures, that is, deviation from expected and desired outcomes and goals (Dahlin *et al.*, 2018). Scholars also argue that not all errors lead to failure; some types of errors can produce positive outcomes and may lead to discovery and innovation, especially when it is routine and rule-based errors. It must be noted that failure in this research refers to failure that results from exploration and trying something new, or what scholars call "intelligent failure" (Pfeffer and Sutton, 2000), not failure that is caused by laziness or lack of technical skills.

Nguyen and Saetre (2015) emphasise that learning from success is different from learning from failure in terms of behaviour and cognition. That is, as opposed to success which tends to reinforce further exploitation along the same trajectory and eventually leads to getting trapped in suboptimal stable equilibria (success trap/ competency trap) in the long run (March, 1991), failure to obtain desired goals may provide organisations with information to focus their search on new directions and eventually obtain prosperity (AmanKwah-Amoah *et al.* 2018; Haj Youssef and Christodoulou, 2017). This finding is consistent with the assumption of prior research which suggests that small failures are more effective for organisations because this type of failure helps organisations to explore and discover uncertainties in advance (i.e., Sitkin, 1992), and it is the only failure that can trigger the motivation for change (Nguyen and Saetre, 2015).

The literature on learning from failure and errors also distinguishes between different types of management training that can be offered to employees to overcome learning from failure barriers. The first type of training is technical and aims to prevent employees from making errors (i.e., skill-based errors and knowledge-based errors). The second type of training aims to enhance individuals' capacity to cope with emerging issues and help them in finding solutions. Error management training also aims to overcome the social barrier and reduce the negative emotions associated with failure (i.e., feeling of guilt and shame), which in its turn leads to better emotion control and improves the ability of individuals to deal with problems and consequently increases their tendency to experiment (Dahlin et al., 2018). Scholars argue that the social barrier is more subtle, and therefore is more challenging to overcome (Cannon and Edmondson, 2004). To overcome the social obstacle associated with failure, organisations must avoid "shooting the messenger", and rather focus on putting in an incentive system that encourages speaking up about failure once it occurs. In addition to that, leaders in organisations must model the desired behaviour (walk the talk) (Edmondson,2003). It must be noted that failure in this research refers to failure that results from exploration and trying something new, or what scholars call "intelligent failure" (Pfeffer and Sutton, 2000), not failure that is caused by laziness or lack of technical skills. Thus, any other type of failure or error is beyond the scope of this study.

Despite the vital role failure plays in organisational learning, few studies only examine learning from failures in the context of exploration and exploitation (Khanna *et al.*, 2016). Additionally, individual failures arising in the natural course of experimentation were overlooked in prior literature, which resulted in an incomplete understanding of how managerial ambidexterity is shaped by error climate. Furthermore, after reviewing the literature on trust, it can be noted that although the literature emphasises the vital role of trust in creating a secure work environment, most studies on trust did not examine trust within the context of individual ambidexterity. Even those few studies that aimed at investigating the impact of trust on individual ambidexterity neglect the vital role tolerance for early failure plays in shaping individuals' capacity to incline towards exploration and eventually demonstrate ambidextrous behaviour. For instance, Zhang et al. (2018) adopted Prietoa et al. (2009), who measure trust-building based on three items: be generally trustworthy, build reciprocal faith in others, and build relationships based on reciprocal faith and support. Lastly, the researcher believes that although Gibson and Birkinshaw (2004) examined tolerance for early failure as an element of social support, their perception of failure is too broad,

hence it did not differentiate between different types of failure and error (i.e., rule-based error, skill-based error). These gaps in the literature have left us ill-informed about how tolerance for early failure shapes individuals' capacity to demonstrate ambidextrous behaviour. To fill the gap in the literature and to overcome this issue, the researcher sought to maintain definition consistency for each element/theme throughout the main study. The researcher believes that consistency is the key to effective coding. Additionally, to enrich the analysis and meet the goal of this study, the researcher sought to focus on a limited number of sub-elements and to focus on failure that results from exploration and trying something new or what scholars (i.e., Pfeffer and Sutton, 2000) call "intelligent failure", not failure that is caused by laziness or lack of technical skills.

2.8.5 Supportive Leadership

Dynamic capabilities evidence the capabilities of leaders to address the change in the external environment by continuously adapting to resource allocation and developing new reasoning (Eisenhardt and Martin, 2000; Vallina *et al.*, 2019). The importance of leadership in managing organisations' culture is highlighted in organisational culture literature. For instance, some scholars shed light on the role played by leaders in influencing their organisational culture and other employees' behaviour and actions through their practices (i.e., Kotter and Heskett, 1992). Other scholars argue that managers' degree of control over an organisational culture is very limited compared to their control over structures, systems, and people (i.e., Schwartz and Davis, 1981). Despite the dichotomies between the two streams, the important role leaders play, which lies in their ability to influence other employees' behaviour, is highlighted in both streams. The behaviour of leaders conveys much more to employees about priorities (i.e., how to spend time and what to choose to celebrate) than do policies and ideologies (Chatman and Cha, 2003). Similarly, the pivotal and important role of leadership in the pursuit and realization of ambidexterity has been highlighted in both structural and contextual ambidexterity literature (Simsek, 2009). As discussed earlier, in structural ambidexterity, the tension between exploration and exploitation activities is only reconciled at the top management level (i.e. O'Reilly III and Tushman, 2013; O'Reilly III and Tushman, 2008). To succeed in that pursuit, the top management team should be able to articulate a clear vision, understand the needs of the subunits, and communicate a clear and agreed strategy (O'Reilly III and Tushman, 2004), support collaborative behaviour, information exchange, and participative- decision making (Lubatkin et al. 2006). Other scholars such as Jansen

et al. (2008) emphasise the important role of transformational leadership in facilitating ambidexterity. They argue that the shared vision and social integration of the senior team, as well as contingency rewards, are positively associated with ambidexterity. Paradoxical cognition of leaders has also been proposed as an antecedent to ambidexterity and as a mechanism to reconciling the tension between exploration and exploitation at the level of senior managers (i.e., Smith and Tushman, 2005). Scholars also link paradoxical cognition and behavioural integration of managers with organisational ambidexterity and argue that less behavioural integrated top management teams are less able to strategically balance exploration and exploitation because they tend to focus on the short-term (Simsek, 2009; Smith and Tushman, 2005). Thus, behavioural integration is a key contributor to the attainment of organisational ambidexterity (Lubatkin et al. 2006; Simsek 2009).

In the discussion on contextual ambidexterity, the realisation and resolving the conflict associated with exploration and exploitation is the responsibility of all employees in the organisation, and the role of managers in this context is to create a supportive environment to facilitate this realization by encouraging employees to be innovative and take initiatives (Birkinshaw and Gibson, 2004; Gibson and Birkinshaw, 2004). Although the authors argue that contextual ambidexterity emerges when leaders develop a supportive organisational context, they emphasise that superior performance is not achieved primarily through charismatic leadership, strong culture, or even a formal organisational structure. Rather, it is achieved by building a carefully selected set of systems, processes, and structures that allow exploration and exploitation to coexist side by side. In line with this, Nemanich et al. (2007) note that creating a supportive organisational context is not the sole responsibility of senior managers and leaders, but it is also influenced by the internal context at the team level.

The impact of leadership on subordinates' ability to demonstrate ambidextrous behaviour was also examined in knowledge-intensive contexts. For instance, Vallina et al. (2019) suggest that inspirational leadership is considered the key leadership approach to enable knowledge creation and facilitate learning in organisations. Vallina et al. (2019) empirically examine the relationship between inspirational leadership and individual ambidexterity in the context of the healthcare industry. Vallina and his colleagues borrowed the definition of organisational learning capability as defined by Chiva et al. (2007), who define OLS as the organisational and managerial

characteristics that facilitate the organisational learning process. Their study revealed that inspirational leadership is positively related to the individual ambidexterity of healthcare physicians. Their results also revealed that the relationship between inspirational leadership and individual ambidexterity is mediated by organisational learning capability (OLC), which comprises five dimensions: experimentation, risk-taking, interaction with the external environment, dialogue and participative decision making.

In line with this, albeit not within the context of ambidexterity, scholars emphasize that inspirational leaders tend to use dialogue, which is vital for knowledge creation and organisational learning, and creativity (Fletcher and Watson, 2007; Bass 1990), and tend to use emotional speech to motivate followers (i.e., Bass, 1985). Although it was not directly associated with individual ambidexterity, the literature on dialogue emphasizes the role dialogue plays in organisational learning and strategic change (i.e., Heracleous et al., 2018; Isaacs, 1993). For instance, Jones and Casulli (2014) argue that the breadth, depth of knowledge and experience allow individuals to develop important heuristics and analogical reasoning, which help them sensemaking for themselves and sense giving to others to deal with new and difficult situations effectively. From reviewing the literature on ambidexterity, it was noted that despite the critical role dialogue plays in fostering knowledge creation and change, it was neglected in the ambidexterity literature. Therefore, it requires further investigation by future research.

Kauppila and Tempelaar (2016) argue that research on the determinants of individual ambidexterity has received little attention in the literature. To fill this gap in the literature, they examine the social-cognitive underpinnings of non-managerial employees' ambidextrous behaviour. Their study focuses on Finnish organisations competing in various industries, and it is considered the first study to explore the antecedents of individual ambidexterity among non-managerial employees. The findings of the study reveal that both psychological factors and leadership shape employees' ambidextrous behaviour. Their results also indicate that: 1) general self-efficacy is positively associated with employees' ambidextrous behaviour, 2) learning orientation mediates the positive relationship between general self-efficacy and employees' ambidextrous behaviour, 3) group manager's paradoxical leadership is positively related to employees' ambidextrous behaviour, and lastly 4) group manager's paradoxical leadership

moderates the positive relationship between employees' learning orientation which means that the relationship is higher when paradoxical leadership is high. Paradoxical leadership is "a leadership style that juxtaposes leader behaviours that seek to foster followers' explorative behaviour with leader behaviours that seek to foster followers' exploitative behaviour" (pp. 1027). This type of leadership is equivalent to what some scholars have termed 'ambidextrous leadership' (i.e., Rosing et al., 2011).

2.8.6 Cognitive Capability

What structural and contextual ambidexterity literature have in common is that they both need individuals possessing a cognitive capability to reconcile the conflicting demands of exploration and exploitation. This section aims to shed light on the role of cognitive mechanisms in managing the contradictory demands of exploration and exploitation. This section also sheds light on the stream of research which suggests that although organisational context may either support or inhibit creativity in individuals, employees' creative behaviour primarily depends on their competencies and characteristics, such as personality, proactivity, motivational processes (Amabile, 1988; Woodman et al., 1993, Raisch et al.2009), position tenure and age (Mom et al., 2009).

Prior research on ambidexterity argue that managers face the challenge of deciding the appropriate mix of resources to allocate for exploration and exploitation in the different stages of organisational life (i.e., Gupta et al., 2006). The research also suggests that balancing exploration and exploitation at the individual level requires specific skills and abilities (Smith and Tushman, 2005). Prior research has also generated valuable insights into the cognitive mechanism of addressing exploration and exploitation. For instance, Helfat and Peteraf (2015, pp.835) introduced the concept of managerial cognitive capacity, which refers to "the capacity of an individual manager to perform one or more of the mental activities that comprise cognition" as a critical underpinning of dynamic managerial capability. Accordingly, Laureiro-Matrtinez et al. (2015) criticise previous studies for their failure to explain what makes a person better at exploration and exploitation. According to Raisch et al. (2009), answering this question requires an analysis of managers' personal and cognitive characteristics.

Drawing on the organisational, psychological, and neuroscience literature, scholars examine the individual differences and human capital heterogeneity regarding abilities to balance exploration and exploitation. Building on the above literature of cognitive capability for managing the tradeoff between exploitation and exploration at the individual level, scholars such as Eisenhardt et al. (2010) and Smith and Tushman (2005) argue that the tradeoff at the individual level is caused by competing cognitive agenda of both activities. According to Smith and Tushman (2005), dynamic contexts tend to challenge the cognitive capacity of individuals to exploit and explore. That's because the interaction of dynamism, time constraints, and complexity tend to emerge in these contexts (Brehmer, 1992). Hence, some organisational actors tend to be inclined towards a 'single, cognitively solution' as a coping mechanism (Eisenhardt et al., 2010).

Drawing from paradox theory, Papachroni and Heracleous (2020, pp.3) advance ambidexterity theory and propose an approach to reconcile the tension between exploration and exploitation that is grounded in practices. According to the authors, ambidexterity is a practice that individuals can engage with in their daily routine. They argue that individual ambidexterity can be obtained via three paradoxical practices:1) engaging in "hybrid tasks" that accomplish dual goals, 2) seeking synergies between exploration and exploitation, and by 3) pursuing actions that cumulatively and overtime capitalize on previous efforts. According to the authors, such a view "complement current macrolevel and tactical approaches to ambidexterity with a more nuances and processual view", and also "challenges the underlying assumption of inherent contradictions between exploration and exploitation".

The vast majority of enthusiasts of individual ambidexterity posit that the most successful practitioners are those who can demonstrate ambidexterity, regardless of whether it is obtained through doing exploration and exploitation simultaneously or rapidly shifting between both activities (sequential or temporal ambidexterity) (Good and Michel, 2013; Gibson and Birkinshaw, 2004; Mom et al., 2009; Zhang et al., 2018). Contrary to this, Levinthal and March (1993) argue that temporal ambidexterity resembles the limited cognitive capacity of individual to simultaneously explore and exploit; therefore, sequential allocation of attention has been viewed as an outcome of bounded rationality and goal conflict. Bounded rationality is defined as the deficiency of the cognitive capacity of individuals to respond to the demand of the task environment (Simon, 1990). Because managers usually experience bounded rationality, they must

rely on simplified representations of the world to process and analyse information (Simon, 1955). These imperfect representations affect the development of the mental models of managers and the way they frame problems and search for solutions (Tripsas and Gavetti, 2000).

In the same vein, Sanchez and Heen (1997) find that managers, especially the less-skilled ones, tend to avoid ambiguities in the higher elements of the organisational system; rather, they tend to focus on the lower elements of the system. Karlsson et al. (2009) refer to this tendency as the "ostrich effect", which suggests that individuals tend to shield themselves from data and information that cause psychological discomfort by burying their heads in the sands. Generally, managers in confusing situations, such as those associated with disturbance change, tend to behave rigidly by clinging to traditional ways of doing things and increasing their use of cognitive simplification processes such as 'rule of thumb' (Mellahi and Wilkinson, 2005).

Terms such as inertia and myopia have been associated with ambidexterity. For instance, Stiglitz et al. (2016) empirically examine the relationship between inertia and adaption and find that organisations involved in exploration activities become less inert. Levinthal and March (1993) identify three types of myopia: 1) the tendency to ignore the long run, 2) the tendency to ignore the larger picture, and 3) the tendency to overlook failure.

In the same vein, prior research sought to examine the relationship between experience, inertia and creativity, suggesting that, although individuals, as well as organisations, often improve their performance by repetition of the same task (learning from experience), which may lead to the attainment of economies of scale and economies of scope in a stable environment, "experience is often a poor teacher" when circumstances change because "learning from experience involves inferences from information" (Levinthal and March, 1993, pp.96). Therefore, performing the same task for a long time may decrease creativity (March, 1991). Accordingly, in the context of managerial ambidexterity, Mom et al. (2009) empirically find that position tenure is negatively related to managerial ambidexterity. Contrary to this, within the dynamic capability literature, it was argued that there are three underpinnings of dynamic managerial capability, namely managerial cognition, social capital, and human capital, and these underpinnings shape managers' ability to influence strategic change and firm performance and tend to develop through prior experience (i.e., Helfat and Martin, 2015). It must be noted here that, within the literature which suggests that organisations learn from their experience, only a few studies have focused on learning

from failure (learning from experience) in the context of exploration, and most of them have failed to distinguish whether the experience resulted from a failure or a success (Khanna et al., 2016).

Laureiro-Matrtinez et al. (2015) argue that decision-makers face a challenge to switch from a success, albeit a short-term one, to new uncertainty. They raise the following question: what triggers the need to change and switch? To answer this question, the authors study the cognitive process underpinning exploitation and exploration and how to switch between exploration and exploitation at the managerial level. They use a neuroscientific method to examine exploration and exploitation. According to them, exploitation is associated with reward-seeking, whereas exploration is associated with attentional control and alternative choices. Laureiro-Matrtinez et al. (2015) argue that top-down attention control is crucial for exploration activities because it inhibits the practice of the current choice to plan, search and select alternatives. Their study suggests that switching from exploitation to exploration is provoked by unsatisfactory results and that brain regions associated with cognitive control will be activated when managers switch from exploitation to exploration. Their findings are consistent with previous research on this area, such as Aston-Jones and Cohen's (2005) study, which suggests that individuals tend to shift from the current to a new task when the outcome falls below a threshold level. The study concludes that only those decision-makers who know when to switch from exploitation to exploration will achieve superior performance because they will have the ability to detect opportunities as they arise, capture, and exploit them until a new opportunity arises.

The negative impact of path dependency on managers' cognitive capability to address the change in the environment also caught the attention of strategic management scholars, especially in the dynamic capability literature, such as Tripsas and Gavetti (2000), Helfat and Peteraf (2015), and Helfat and Martin (2015). For instance, Tripsas and Gavetti (2000) explore how managerial cognitive capacity affects the adaptive intelligence of organisations. They examine the responses of Polaroid Corporation's managers to the shift from analog to digital imagining. The study reveals that the development of new capabilities in the corporation was influenced by its managerial cognition and inertia. They also find that senior managers at Polaroid were only able to develop new technologies and beliefs as long as these technologies and beliefs were consistent with their current competency (path-dependency effect). Helfat and Martin (2015) discuss how heterogeneity

of cognitive capability of managers may produce heterogeneity of dynamic managerial capabilities among them.

Avoiding getting trapped in suboptimal stable equilibria (competency trap) is a key motive for wearing more than one hat at a time (see March, 1991; Gibson and Birkinshaw, 2004). In his book, "*Only the Paranoid Survive",* which was published in 1996, Andrew Grove the CEO of Intel emphasises the importance of deliberate exploration in the pursuit of strategic fitness. According to the author, to succeed in this endeavour, managers must avoid being biased and emotionally attached to their existing competencies and traditional ways of doing things.

Nguyen and Saetre (2015) classify cognitive bias as one of the main psychological factors that impede individuals, groups, and organisations from learning from failure. According to the authors, the two main types of cognitive bias that prevent individuals from learning from failure are escalation of commitment (when individuals remain committed to their past decision, behaviour or investment, even after receiving a negative outcome from that decision, behaviour or investment) and attribution bias (when individuals ascribe failure to external factors instead of questioning the validity of their own beliefs).

Tempelaar and Rosenkranz (2019) argue that although previous studies have provided insights into the cognitive mechanisms of addressing exploration and exploitation, antecedents of these cognitive mechanisms remain unexplored. The authors raise the following question: "What enables some individuals to harness these cognitive processes, while others cannot?" (pp.1518). To fill this gap in the literature and drawing on identity theory which links cognition with individual behaviour, Tempelaar and Rosenkranz (2019) empirically examine the influence of role integration and role segmentation on managers' ability to demonstrate ambidextrous behaviour. Based on data from 120 managers, the study reveals that role segmentation is negatively associated with managers' ambidextrous behaviour. However, when operating in cross-functional teams, the impact of role segmentation becomes positive. Albeit not within the context of ambidexterity, prior research suggest that role identity plays a key role in determining the expectations and requirements from an individual holding a role, and it also influences how information is being assessed and the decision and behaviour an individual considers (see Brusoni and Rosenkranz, 2014).

Drawn on social cognitive theory, Kauppila and Tempelaar (2016) empirically examine the

relationship between general self-efficacy and ambidextrous behaviour. The authors find that general self-efficacy is positively associated with ambidextrous behaviour. Hence, they argue that general self-efficacy is a key psychological trait that underpins individuals' ambidextrous behaviour. In the same vein, research on self-efficacy suggests that individuals with high general self-efficacy possess the skills and capacity required to change a situation and reach challenging goals (Chen et al., 2000). Moreover, they tend to invest great efforts into taking necessary risks (Bandura and Locke, 2003), tend to be less hesitant to take ownership of broader goals (Kauppila and Tempelaar, 2016), and tend to be less affected by the negative feedback associated with failure, and that's because general self-efficacy acts as a buffer against the demoralizing influence of negative feedback (Eden, 1988). Thus, compared to individuals with low general self-efficacy, individuals with high general self-efficacy are more likely to simultaneously pursue exploration and exploitation activities (Kauppila and Tempelaar, 2016).

Only a few studies identify common characteristics of ambidextrous individuals. From those, Birkinshaw and Gibson (2004) focus on managerial individuals and non-managerial individuals. Their study reveals that ambidextrous individuals: 1) take initiatives and are alert to opportunities beyond their task lines; 2) are cooperative and seek out opportunities to combine their efforts with others; 3) are broker and always seek to build internal linkage; 4) are multitaskers and comfortable wearing more than one hat at a time. In line with this, Mom et al. (2009) suggest three related characteristics of ambidextrous managers, as follows.

1) Hosting Contradictions

Ambidextrous managers "have the motivation and ability to be sensitive to, to understand and to pursue a range of seemingly conflicting opportunities, needs and goals" (Gibson and Birkinshaw, 2004 as quoted in Mom et al., 2009, pp.813). They deal with conflicting demands and engage in paradoxical thinking (Duncan, 1976; Smith and Tushman, 2005; Birkinshaw and Gibson, 2004), and they have both a short-term and a long-term orientation towards identifying and pursuing opportunities (O'Reilly III and Tushman, 2004). For example, ambidextrous managers search for new market needs and opportunities while being sensitive to current market demands (i.e., existing products and market position) (Burgelman, 2002; Tushman and O'Reilly III, 1996).

2) Multitaskers

Ambidextrous managers "fulfill multiple roles and conduct multiple different tasks within a certain period of time" (Mom et al., 2009, pp.813). They tend to be more generalists rather than more specialists (Birkinshaw and Gibson, 2004). They tend to act outside the narrow confines of their task lines (Birkinshaw and Gibson, 2004) and conduct both routine and non-routine activities (Adler et al., 1999). Ambidextrous managers fulfil multiple roles related to both competence deployment and competency definition activities (Floyd and Lane, 2000).

3) Refining and Renewing their Knowledge, Skills, and Expertise

Ambidextrous managers pay excessive attention to acquiring and processing different kinds of information and knowledge (Mom et al., 2009). They tend to engage in both reliability enhancing and variety increasing learning activities; that is, ambidextrous managers tend to use exploitative processes to involve in explorative activities (Holmqvist, 2004), and engage in both local and distant searches for knowledge and information within their network of contacts (Hansen et al.,2001). They also tend to acquire and process both explicit and tacit knowledge (Lubatkin et al., 2006; Nonaka, 1994).

More recently, and within the context of individual ambidexterity, a study conducted by Volery et al. (2015) and was based on structural observation of six entrepreneurs suggests that successful entrepreneurs tend to engage in both exploration and exploitation activities. Their study reveals six behavioural patterns that include boundary spanning and nurturing platforms for both exploration and exploitation, engaging in divergent thinking, continuing switching between task-oriented and change-oriented tasks, and avoiding being trapped in exploitation activities by deliberately getting involved in exploration activities.

Additionally, based on a Viable Systems Approach (VSA) and in the context of the service economy, Barile et al. (2015) attempt to explore the skills required to pursue innovation in the service economy. They suggest five horizontal capabilities that characterise T-shaped innovators and are deemed vital for flexibility and adaptability to change: wishful thinking, lateral thinking, open-minded gifts, knowledge-seeking capabilities, and social intelligence.

Literature has addressed the issue of simultaneously practising exploration and exploitation and the managerial tension that arises due to the attempt to combine the two contradictory activities

(Sinha, 2015). Despite the importance of individual ambidexterity in addressing the change in the environment by balancing exploration and exploitation, there remains a gap in the literature on ambidexterity, which may be due to the difficulties in capturing individual data in a dynamic context (Good and Michel, 2013). According to Good and Michel (2013), studies on individual ambidexterity focus on investigating past exploratory and exploitative behaviour only, which has resulted in their failure to capture the simultaneity of exploration and exploitation (temporal/sequential ambidexterity vs. simultaneous ambidexterity). Focusing on simultaneous ambidexterity is deemed important because, as rates of change and uncertainty escalate, managers face dynamic decision-making (DDM) scenarios (Smith et al., 2010; Farhoomand and Drury, 2002) in which ambiguity, complexity, and contradictory information arise which result in compounding managerial decision-making (Mckenzie et al., 2009). Good and Michel (2013) also criticise previous studies on individual ambidexterity, particularly managerial ambidexterity (i.e., Birkinshaw and Gibson, 2004; Mom et al., 2009; Mom et al., 2007) for their failure in shedding light on the individual differences between managers, which is due to their focus on the behavioural actions of those managing the dilemma. To address this void, Good and Michel (2013) study the behaviour of 181 undergraduate business students in a real-time dynamic micro-world context. They define individual ambidexterity as the cognitive flexibility to balance efforts of exploration and exploitation. Their study reveals that to obtain simultaneous ambidextrous behaviour, the individual must possess three variables: divergent thinking (which is associated with exploration), focused attention (which is associated with exploitation), and cognitive flexibility (which is associated with the ability to balance exploration and exploitation).

In summary, the literature review in this section reveals that exploration and exploitation are not mutually exclusive at the organisational level (He and Wong, 2004), at the business-unit level (Gibson and Birkinshaw, 2004), and at the managerial level (Mom et al., 2009). Some scholars shed light on the role played by organisational context in influencing managers' capacity to demonstrate ambidextrous behaviour (i.e., Gibson and Birkinshaw, 2004). Other scholars argue that managers 'capacity to host contradictions (exploitation and exploration) is highly dependent on their skills and characteristics (Mom et al., 2009; Barile et al., 2015; Volery et al., 2015). Despite the dichotomies between the two streams, they both aim at answering the following question: What makes a manager ambidextrous?

The following section identifies gaps in ambidexterity literature from which the researcher developed the research aim and objectives and formulated the conceptual framework.

2.9 Research Gaps

Despite the success that organisations adopting structural separation technique have achieved, several scholars note that structural separation alone may not be enough to assure prosperity, competitiveness, or even survival in the long run (Simsek, 2009; Gibson and Birkinshaw, 2004; Birkinshaw and Gibson, 2004; Wang and Rafiq, 2014, Chen 2017; Zhang et al., 2018; Vallina et al., 2019). As a result, scholars' attention has shifted from examining ambidexterity at the macro-level to examining it at the micro-level. This shift has been driven by the belief that in an era of disruptive change, firms need to speed up their innovation process by empowering individual employees to respond to the change in their task environment through embedding exploration and exploitation within their daily routine; in other words, to be ambidextrous. The shift has also been driven by the belief that the tension between exploitation and exploration is best reconciled at the individual level, not at the top-management level, simply because top executives may face many constraints and limitations (i.e., limited cognitive capability and myopia), and may become the bottleneck of structural ambidexterity which may cause structural ambidexterity to fail (Chen, 2017). To date, little is known on how managerial ambidexterity is achieved, and most importantly the vital role organisational settings and managers' skills and characteristics play in shaping the manager's capacity to demonstrate ambidextrous behaviour. From reviewing ambidexterity literature, it has been noticed that the majority of ambidexterity studies have adopted a macro perspective approach (examined ambidexterity at the organisational level). Even subsequent studies that aim to fill this gap in the literature by focusing on the micro level fail to provide us with a compelete understanding of how managerial ambidexterity is achieved. For instance, although Gibson and Birkinshaw (2004) investigated the impact of four themes of contextual ambidexterity (discipline, stretch, support, and trust) on managers' capacity to demonstrate ambidextrous behaviour, no further studies have been conducted to verify the accuracy of these themes (Zhang et al., 2018), nor to explore the role these attributes play in shaping managers' capacity to demonstrate ambidextrous behaviour. Moreover, the literature on managerial ambidexterity provides fresh insight into how the conflicting demands of exploration and

exploitation are reconciled by managers (i.e., Mom et al., 2007, 2009), but this literature fails to shed light on how the differences between managers affect their capacity to reconcile this conflict (i.e., simultaneous balancing or shifting from one to another (temporal)), and that is due to the focus on the behavioural actions of those who are managing the exploration/exploitation dilemma instead of the individual differences between them (Good and Michel, 2013), and also due to the emphasis on examining individual and managerial ambidexterity quantitatively, which limits our ability to see the world from the micro-view point of practitioners.

The heavy emphasis on examining ambidexterity at the macro level, quantitatively, as well as focusing on the behavioural actions of practitioners instead of the individual differences between them have left ambidexterity theory incomplete, which in turn reduces our understanding of how managerial ambidexterity can be achieved (Mom et al., 2009; Chen, 2017; Raisch and Birkinshaw, 2008; Tempelaar and Rosenkranz, 2019; Gibson and Birkinshaw, 2004; O'Reilly III and Tushman, 2013), specifically at the managerial level of analysis (Gupta, 2006; Raisch and Birkinshaw, 2008; Tempelaar and Rosenkranz, 2019).

Managerial ambidexterity remains under-theorised and under-conceptualised, and therefore it remains poorly understood (Simsek, 2009; Raisch et al., 2009; Chen, 2017; O'Reilly III and Tushman, 2013; Tempelaar and Rosenkranz, 2019). To fill this gap in the literature, the researcher sought to bring together two seemingly different streams of research. The first stream aims at exploring how organisational context shapes individuals' capacity to demonstrate ambidextrous behaviour (i.e., Gibson and Birkinshaw, 2004; Kao and Chen, 2016; Zhang et al., 2018), and the second stream aims at examining skills and characteristics of ambidextrous individuals (i.e., prior knowledge and multitasking) that increase their capacity to excel at reconciling the tension between exploration and exploitation (i.e., Kauppila and Tempelaar, 2016; Mom et al., 2009; Barile et al., 2015; Volery et al., 2015). When explaining individual ambidexterity (i.e., manager's ambidexterity), organisational factors have to be considered alongside personal characteristics (Raisch et al., 2009).

This study contributes to answering the call by the current body of literature which suggests the need to understand how the tension between exploration and exploitation is managed at the

individual level (i.e., Zhang et al.2018; Vallina et al., 2019), particularly at the managerial level (i.e., Mom et al., 2009), to examine the impact of organisational context on managing this tension (the individual outcomes of contextual ambidexterity)(i.e., Simsek, 2009; Raisch et al., 2009; Gupta et al., 2006; Mom et al., 2009;), and to examine how different types of coordination mechanisms relate to variations in managers' ambidexterity (Mom et al., 2009). Further, this study answers the call by O'Reilly III and Tushman's (2013) which suggests the need to examine ambidexterity qualitatively and across management levels.

Research Questions:

Building on the notion of contextual ambidexterity, this study seeks to advance our understanding of managerial ambidexterity by qualitatively exploring how managers reconcile the tension between exploration and exploitation, investigating what kind of individual competencies and skills that enable and reinforce manager's capability to demonstrate ambidextrous behaviour, exploring how organisational context factors influence managers' ability to manage this tension, and lastly, examining the variation in managers' ambidexterity and its relation to their level in the corporate hierarchy. After the extensive literature review in the precedent chapter, the following questions were derived:

1. How is the conflict of exploitation and exploration activities reconciled by individual managers?
2. What are the individual competencies and skills that influence managers' capacity to reconcile the tension between exploration and exploitation?
3. How does organisational context, which comprises discipline, stretch, support and trust, shape managerial ambidextrous behaviour?

The three questions above aim at advancing our understanding of how managerial ambidexterity is achieved by examining the relationship between managerial ambidexterity and its drivers. As discussed, to succeed in answering the three questions above, the researcher sought to bridge the gap between two streams of research. The first stream aims at exploring how organisational context shapes individual capacity to demonstrate ambidextrous behaviour (i.e., Gibson and Birkinshaw, 2004), and the second stream aims at examining skills and characteristics of ambidextrous

individuals (i.e., prior knowledge and multitasking) that increase their capacity to excel at reconciling the conflicting demands of exploration and exploitation (i.e., Mom et al., 2009; Barile et al., 2015; Volery et al., 2015). When explaining individuals' ambidexterity, organisational factors have to be considered alongside personal characteristics (Raisch et al., 2009).

Contextual ambidexterity proposes that the tension between exploration and exploitation must be managed at the individual level and across hierarchical levels, not only at the top management level. Therefore, managers at all levels fall in the scope of this study.

2.10 Conceptual Framework

The conceptual framework is a visual representation and reflection of the literature and the gaps identified in that literature that the research aims to address. After reviewing literature on managerial ambidexterity, it was evident that there is an incomplete understanding of how individual managers reconcile the tension between exploitation and exploration. Based on this review, the gap in the ambidexterity literature was identified, the research questions emerged, and the conceptual framework was formulated. As discussed, this thesis seeks to fill this gap in the literature by bringing together two seemingly different streams of research. The first stream suggests that individuals do not operate in a vacuum, and organisational context plays a crucial role in enabling and constraining their ability to demonstrate ambidextrous behaviour (i.e., Gibson and Birkinshaw, 2004), and the second stream suggests that individuals' skills and characteristics affect their cognitive capacity to excel at reconciling the tension between exploration and exploitation (i.e., Good and Michel, 2013; Mom et al., 2009; Barile et al., 2015; Volery et al., 2015). The conceptual framework is presented in terms of drivers of managerial ambidextrous behaviour. Drivers associated with organisational context (**discipline, stretch, support and trust)** and associated sub-drivers (i.e., feedback and rewards) were deducted from Gibson and Birkinshaw's (2004) framework. Drivers associated with personal skills of managers were deducted from Mom et al. (2009) and Gibson and Birkinshaw (2004). Birkinshaw and Gibson's (2004) reveals that ambidextrous individual: take initiatives and are alert to opportunities beyond their task lines, cooperative and seek out opportunities to combine their efforts with others; and are brokers and always seek to build internal linkage, and multitaskers and comfortable wearing more than one hat at a time. In line with this, Mom et al. (2009) suggest three related characteristics

of ambidextrous managers: multitasker, hosting contradictions, and refining and renewing their knowledge, skills, and expertise. Figure (3) below shows the research framework adopted and investigated in this thesis.

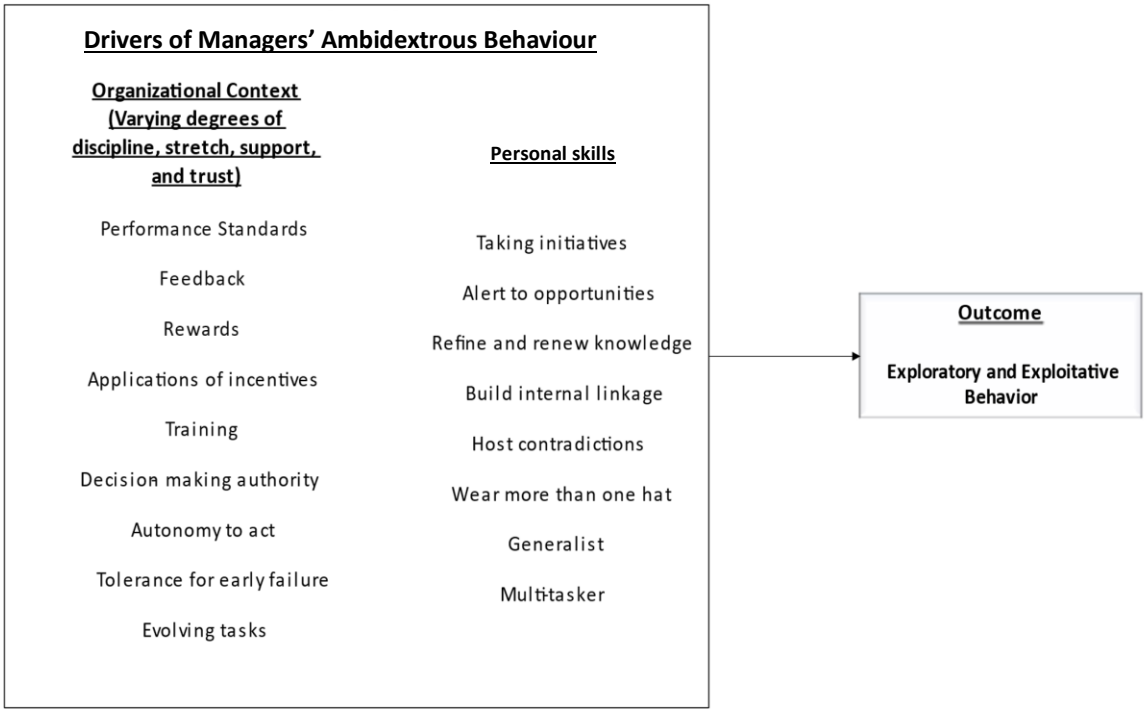

Figure (3): Research Framework

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

This study adopted a qualitative method for collecting, processing and analysing data. This approach was chosen because it was the most appropriate approach for addressing the aim of this study, which is to understand how organisational context shapes the exploratory and exploitative behaviour of managers (actors) and to explore the interconnections between actors, actions, and contexts. The chapter begins with a brief description of the methodology and philosophies that underpin this study, followed by a discussion on the research method and the analytical approach adopted in this study.

3.2 Research Philosophies: Ontology and Epistemology

For a study to contribute to the current body of research, it requires a solid philosophical foundation (Lee and Lings, 2008). According to Powell (2002: pp. 879), a strategy is "an experiential arena where philosophy matters, and strategy research is beginning to recognize this connection". There are two philosophical fields underpinning research, namely, ontology and epistemology. Ontology is associated with the study of the nature of reality. In contrast, epistemology is associated with what we can know about that reality, and that is affected by what is reality from the perspective of the researcher (Lee and Lings, 2008). "Epistemology is usually understood as being concerned with knowledge about knowledge. It is the study of the criteria by which we can know what does and does not constitute warranted, or scientific, knowledge while ontology is a branch of philosophy dealing with the essence of phenomena and the nature of their existence." (Symon and Cassell, 2012:pp. 17). Scholars such as Huges (1980) and Dobson (2001) argue that ontological issues and epistemological issues are interrelated. For instance, claims and beliefs about what exists (ontology) strongly influence the ways of studying it (epistemology) and the way the analytical framework is conceptualised. Scholars also argue that it is essential for the researcher to take a stand before commencing his/her study. For instance, Symon and Cassell (2012) suggest that a researcher must adopt an ontological and epistemological position to be able to operate.

Maxwell (1996) argues that this stand is usually shaped by the researcher's background and experience, which affects the lens through which he/she is looking at the phenomenon. Such motivations are usually explicated to inform the reader about the researcher's background so that he/she can better understand the researcher's perspectives (Maxwell, 2013). Thus, it must be explicated that the ontological and epistemological positions of the researcher in this study had been shaped by his experience of the world. Reflecting on his work experience prior to pursuing a doctoral degree, the researcher has become aware of the role the organisational context plays in shaping employees' exploratory and exploitative behaviour.

Many methodological approaches underpin research, such as empiricism, positivism, interpretivism, rationalism; however, positivism and interpretivism are considered the predominant philosophies in social research (Goulding, 2002). The choice to adopt a particular research method should depend on the aim of the research (Silverman, 2000). This study is exploratory; hence, it explores how managers' exploratory and exploitative behaviour is shaped by their organisational context and individual attributes and examines the interconnections between actors (managers), actions, and contexts. Thus, the researcher sought to adopt the interpretive qualitative approach. What follows is a brief discussion on the differences between the main two approaches/philosophies. This comparison highlights the main difference between these two approaches to present a justification for adopting the interpretivism approach.

3.2.1 Positivism

Positivism aims to create generalisable knowledge (Symon and Cassell, 2012); thus it employs a reductionist approach in its pursuit to explore relationships between variables (Bryman, 1988). Positivists believe that ideas are not meaningful if they can't be verified and empirically tested; therefore, anything that cannot be observed is considered unreal (Lee and Lings, 2008). They also believe that reality is stable and thus can be studied and observed from an objective point of view regardless of the phenomenon under investigation (Levin, 1988). They also believe that reality is independent of human perceptions and that the external world is objective, and therefore can be measured quantitatively (i.e., Gilbert, 2001). Further, positivists believe that standard patterns will help them identify the relationship between the elements of the social world (Patton, 2002).

Positivism is associated with quantitative research. “A quantitative research methodology is appropriate where quantifiable measures of variables of interest are possible, where hypotheses can be formulated and tested, and inferences drawn from samples to populations” (Liebscher, 1998, pp.669). The quantitative research procedures are often viewed as providing macro-level perspectives on the social world (Gilbert, 2001).

3.2.2 Interpretivism

Interpretivism is an alternative approach to positivism. Interpretivists believe that reality is elusive, and therefore there is no single and objective version of it (Gilbert, 2001). They also believe that the world and reality can only be achieved by subjective interpretations of the researchers that emerge from participating in the social settings of the phenomenon (Denzin and Lincoln, 2000), and by studying people in their natural setting and seeking meaning from both the viewer and the viewed (Charmaz, 2000). According to this school of thought, what distinguishes human action from the movement of physical objects is that the former is inherently meaningful (Schwandt, 1994). Interpretivism is influenced by the phenomenological premise which aims to better understand the motives of actors through deep involvement in their experience to understand the world from that micro-view point (Sandberg and Tsoukas, 2011). To understand the world, there is a need to find meaning in actions, and that requires understanding and interpreting what the actors are doing (Schawandt, 1994). There are no pre-defined dependent and independent variables in interpretivism research, rather, the focus is on reducing the complexity of human sense-making as the situation emerges (Kaplan and Maxwell, 1994).

Contrary to positivism, reducing complex social phenomena to cause and effect relationships is rejected in interpretivism (Lee and Lings, 2008). The interpretivism approach is associated with qualitative research. “Qualitative research is a situated activity that locates the observer in the world. It consists of a set of interpretive, material practices that make the world visible” (Denzin and Lincoln, 2000). Qualitative research is concerned with “what” and “how” questions (Denzin and Lincoln, 2003). “The strengths of qualitative research derive primarily from its inductive approach, its focus on specific situations or people, and its emphasis on words rather than numbers” (Maxwell, 1996, pp. 17). “Qualitative methods are appropriate when the phenomena

under study are complex, social in nature and do not lend themselves readily to quantification. Qualitative methods are used when understanding the cultural context from which people derive meaning is an important element of a study. Such cultural context is usually not susceptible to quantification and aggregation and is therefore usually ignored in quantitative studies" (Liebscher, 1998: pp.669). Moreover, "qualitative methods can be used to uncover and understand what lies behind any phenomenon about which little is known. It can be used to gain novel and fresh slants on things about which quite a bit is already known. Also, qualitative methods can give the intricate details of phenomena that are difficult to convey with quantitative methods" (Strauss and Corbin, 1990: pp.19). In addition to that, the qualitative approach provides rich data on the phenomenon under investigation (Seawright and Collier, 2004) and contrary to the quantitative research that is used for research with mature theories; qualitative research is traditionally applied in the nascent research stage of theory development (Edmonson and McManus, 2007). Lastly, qualitative research is used to understand the process by which actions and events take place (Maxwell, 1996). See table (3) for the differences between positivism and interpretivism.

Basic of Comparison	**Positivism**	**Interpretivism**
Basic Beliefs	- World external and objectives. - Observer is independent.	- World socially constructed and subjective. - Observer is part of what is observed.
Research Focus	- Focus on facts - Look for causality and fundamental laws. - Reduce phenomena to simplest elements. - Formulate hypothesis then test them.	- Focus on meaning. - Try to understand what is happening, - Look at totality of each situation. - Develop idea through induction from data.
Preferred Methods	- Operationalizing concepts they can be measured. - Taking large samples.	- Use multiple methods to establish different views of phenomena. - Small- sample investigated in-depth or overtime.

Table (3): Features of two major philosophies (Easterby-Smith et al., 1991)

3.2.3 Debates Surrounding the Two Research Philosophies

There have been ongoing debates on the qualitative and quantitative philosophy of research. Several scholars argue that the quantitative approach is not suitable for social science research, and it has been viewed as myopic, outdated, lacks flexibility, and a barrier to the development of

new theories since it limits the researcher's attention and directs him/her to focus on testing existing theories (Goulding, 2002). Galliers (1991) emphasises that the problem with the quantitative approach is that it's intensively concerned with causal relationships at the expense of delving into the phenomenon being investigated. On the other hand, positivists view the qualitative approach as unscientific, lacking validity and generalisability (Denzin and Lincoln, 2000). Enthusiasts of the qualitative approach believe that this approach is necessarily inductive, and therefore any prior structuring leads to a lack of flexibility to respond to emergent insights and resulting in creating methodological "tunnel vision" in making sense of data. These structure approaches are associated with quantitative research, positivism or power inequalities between researchers and researched. On the contrary, less structural approaches are associated with qualitative research that is characterised by trading generalisability for internal validity and contextual understanding, which are useful in revealing the process that leads to a specific outcome, or what Miles and Huberman (1994) call "local causality" (see Maxwell, 2013, pp.88). Table (4) below further highlights some of the differences between quantitative and qualitative research.

Qualitative Method	**Quantitative Method**
Emphasis on understanding	Emphasis on testing and verification
Focus on understanding from respondent's/informant's point of view	Focus on facts and/or reasons for social events
Interpretation and rational approach	Logical and critical approach
Observations and measurements in natural settings	Controlled measurements
Subjective `insider view' and closeness to data	Objective `outsider view' distant from data
Explorative orientation	Hypothetical-deductive, focus on hypothesis testing
Process-oriented	Result-oriented
Holistic perspective	Particularistic and analytical
Generalisation by comparison of properties and contexts of individual organism	Generalisation by population membership

Table (4): Differences between Quantitative and Qualitative Methods of Research (Ghauri and Gronhaug, 2005)

3.3 Research Methodology

Adopting a specific philosophy for the study is important for the quality and relatedness dimensions (Neuman, 2000). The notion of individual ambidexterity is still in its infancy. This study aims to understand how organisational context and individual skills shape managers' exploratory and exploitative behaviour and explore the interconnections between actors (managers), actions, and contexts. This study is exploratory, and thus, qualitative methodology is the most appropriate approach for the research topic and the research questions under investigation. The interpretive approach is appropriate when the phenomenon being studied cannot be easily measured quantitatively (Strauss and Corbin, 1990), and that is due to the subjective nature and the intrinsic meaning of the phenomenon.

Apart from its methodological value, the qualitative approach is considered a shift from the tendency to examine ambidexterity quantitatively that prevailed in the literature. Further, the qualitative approach allows the researcher to understand the world of lived experience from the actors' point of view, which is required to fill the gap in the literature. Furthermore, the qualitative approach aligns with the researcher's epistemological and ontological stands which were shaped by his background and experience. For these reasons combined, it was decided to adopt the interpretive qualitative methodology.

This study responds to the call of the current body of literature which suggest the need to examine the impact of organisational context on managers' ambidexterity (the individual outcomes of contextual ambidexterity), to understand how individuals (i.e., Simsek, 2009; Raisch et al., 2009; Gupta et al., 2006), particularly managers (Mom et al., 2009) manage the tension between exploration and exploitation; and to examine how different types of coordination mechanisms relate to variations in managers' ambidexterity (Mom et al., 2009). Further, this study answers the call by O'Reilly III and Tushman's (2013) which suggests the need to examine ambidexterity qualitatively and across hierarchical levels.

3.3.1 Research Design

To explore how organisational context shapes managers' exploratory and exploitative behaviour, the study adopted a non-random (non-probability) sampling approach that is based on selecting

participants from a wide range of industries (service and manufacturing industries). The researcher appreciated the advantages of other qualitative research designs, such as case studies and ethnographic designs. Nevertheless, for this study, non-random sampling is the most appropriate approach. The rationale for the selection of this research design was driven by two factors; first, to minimise compromising the external validity of the findings due to industry-specific effects. Yin (2003) argues that case studies are not the best approach for assessing the prevalence of a phenomenon and that single-case design is "vulnerable" because it reflects fears about the uniqueness of conditions surrounding the case. Second, to align with the notion of qualitative research which emphasises the need to choose a sample deliberately, not randomly (Moser and Korstjens, 2018). As opposed to probability sampling employed in quantitative research, qualitative research is purposive and aims at providing rich information on the phenomena under investigation (Vasileiou *et al.*, 2018).

3.3.2 Level of Analysis and Unit of Analysis

In this study, the level of analysis is managers, regardless of their level in the corporate hierarchy, and the unit of analysis is managerial activities (exploration and exploitation) in reaction to organisational context (managers' reaction to organisational context). Both the level of analysis and the unit of analysis in this study were informed by the main aim of the research questions, which is to explore how the tension between exploration and exploitation is perceived and reconciled by managers, investigate what kind of individual competencies and skills that enable and reinforce manager's capability to demonstrate ambidextrous behaviour, and most importantly, explore the organisational context factors and individual attributes that influence managers' ability to manage this tension. This research expands beyond the predominant focus in the literature on top management teams (i.e., executives) or middle managers.

3.3.3 Research Context

This study is a cross-context comparative study. The study adopted a non-random (non-probability) sampling approach that is based on selecting participants from a wide range of industries (both service and manufacturing industries) such as manufacturing and engineering

services, advanced technology manufacturing and services, telecommunications, financial and professional services, healthcare services, waste, water and energy management, and hospitality and events. The researcher followed Mom et al. (2009), which suggests that investigating manager's ambidexterity compels the researcher to examine managers whose firms are confronted with pressures to explore and exploit due to the change in their external environment. These firms are forced to explore to address the changes in customer demand, competition, technology, and regulations, and at the same time, they are forced to exploit, focus on efficiency and cutting costs to meet their short-term competitiveness pressure. It's worth noting here that based on the outcomes of the pilot study, it was decided to exclude the third sector from this study. The pilot study interviews revealed that managers who were operating in the third sector were less confronted with the pressure to explore, and in a best-case scenario, they tended to explore along the supply chain only. The rationale for excluding the third sector was driven by the need to recruit participants who can provide the richest information, have the knowledge on the phenomenon under investigation, and can reflect and articulate (see Moser and Korstjens, 2018). For more information about the pilot study outcomes, refer to section (3.5) and appendix (1).

3.3.4 Data Collection

The choice of data collection method is influenced by the research problem, research design, the nature of the participants, and researcher skills (Ghauri and Gronhaug, 2005). This section presents the data collection method adopted in this study and the rationale behind choosing it. For data collection, the researcher employed semi-structured interviews. The rationale for this selection will be next presented.

- **Interviews**

Interviews are one of the most important sources of data in qualitative research (Yin, 2003). An interview involves an "encounter between a researcher and a respondent in which the latter is asked a series of questions relevant to the subject of the research" (Ackroyd and Hughes, 1983, pp.66). There are three types of interviews: structured, semi-structured and unstructured interviews (Denzin and Lincoln, 2000). In structured interviews, the researcher is more likely to follow a specific set of questions derived from the case study protocol (Yin, 2003). In this type, the same

pre-established questions are asked for all participants (Denzin and Lincoln, 2000). In other words, the participants only passively respond to a set of pre-established questions. In semi-structured interviews, the researcher asks participants about the matter under investigation and their opinion about events, and this involves asking them to propose their insights (Yin, 2003). In this type of interview, the researcher will be able to investigate a phenomenon that is relevant to the research topic and at the same time give participants the freedom to reply in their own way (Bryman, 2004). The questions and topics in semi-structured interviews are broader and allow new questions to emerge during the interview (Denzin and Lincoln, 2005). Lastly, unstructured interviews provide a greater breadth of data compared to other types of interviews (Denzin and Lincoln, 2000).

In this study, the semi-structured interviewing approach was adopted because it meets the objective of this study, which is to examine how particular elements of organisational context (discipline, stretch, support and trust) shape the ambidextrous behaviour of managers. The semi-structured interviewing approach allowed the researcher to form a set of questions based on the four pre-defined themes of organisational context adopted in this study (discipline, stretch, support and trust), and at the same time, allowed the participants to freely express their views on how these themes influenced their behaviour, thanks to the open-ended nature of this approach. Most interviews (a total of 24) were face-to-face, and the rest (a total of 12) were conducted virtually via Zoom (a reliable video communication program), where face-to-face interviews were not possible due to the Covid-19 pandemic. Nowadays, virtual interviewing has become essential when in-person interviews were not made possible due to the social distancing orders associated with the pandemic. The Covid-19 pandemic has accelerated the need to shift from the traditional way of data collection methods (i.e., face-to-face interviews and participant observation) for qualitative research and explore alternatives (Archibald *et al.*, 2019; Saarija and Brat, 2021). Thanks to the advancement in communication technologies, which has accelerated during the Covid-19 pandemic and offered new opportunities for the conduct of qualitative research.

The literature on ambidexterity was deemed helpful in broadening the researcher's knowledge on the main drivers of managers' ambidextrous behaviour. It helped the researcher create a set of questions that covers drivers associated with both organisational context and managers' skills and characteristics, which in turn help in answering the main questions raised in chapter (1). Regarding

the interview questions, they were based on reviewing prior literature which links organisational context (i.e., Gibson and Birkinshaw, 2004) and managers' skills and characteristics (i.e., Mom et al., 2009) with managers' ambidextrous behaviour. Questions associated with organisational context were mainly derived from Gibson and Birkinshaw (2004) who conceptualise organisational context in terms of four behaviour framing attributes: discipline, stretch, support and trust. Questions associated with managers' skills and characteristics were based on Mom et al. (2009) and Gibson and Birkinshaw (2004) and on how these skills and characteristics (i.e., multitasking) were referred to in these studies. Although the two seminal studies mentioned above are in quantitative in nature, the researcher benefited from their questionnaire questions and adapted some of these questions into interview questions. For instance, to capture trust, instead of asking respondents to indicate the extent to which system encourages them to treat failure as a learning opportunity, they were asked to answer few questions like "How failure in achieving goals is perceived in the department?" and "How easy is it to make decisions here?". To check the accuracy of understanding and to avoid making incorrect assumptions, the researcher collected feedback on the interview questions from experienced researchers. The feedback was very helpful in gaining multiple and possible interpretations of the interview questions. Collecting this feedback allowed problems associated with the clarity of research questions to surface. For instance, there was a need to alter some concepts and phrases to make them more understandable and to maintain an adequate level of internal validity. In addition to experienced researchers, the researcher sought to conduct pilot study. Piloting was deemed helpful in broadening the researcher's knowledge and also in linking theories to practice. The outcome of the pilot study is discussed in section (3.5). Appendix (2) shows the interview protocol the researcher developed and aimed at answering the research questions. The main aim of the questions was to investigate how managers perceived and managed ambidexterity tensions within their everyday activities and how this is influenced by their internal organizational environment and their individual skills and characteristics.

3.3.5 Recruiting Participants

The aim of the research plays a vital role in choosing the interviewees that help the researcher answer the research questions. In a bid to answer the research questions and to meet the objectives of a study, it has been suggested that qualitative researchers should select accessible participants who are willing to provide the information needed to answer their research questions (Creswell,

1981; Symon and Cassell, 2012). The researcher at this stage aimed to recruit participants who operate in highly competitive environment, who can provide the richest information, who have the knowledge on the phenomenon under investigation, and who can reflect and articulate (see Moser and Korstjens, 2018). To meet this aim, both purposive and snowball samplings were employed. Purposive sampling was found fruitful, especially at the initial stage of the recruiting process, because it allowed the researcher to select participants who were the most informative and knowledgeable on the phenomenon under investigation regardless of their position in the corporate hierarchy. This strategy was deemed helpful in broadening the researcher's knowledge by linking theories to practice and refining interview questions. The snowball technique was then employed where previously selected interviewees had access to potential participants (not necessarily within the same organisation) who could offer further insights (see Moser and Korstjens, 2018). A number of managers who met the mentioned criteria were contacted to obtain approvals to be interviewed by the researcher. The researcher sent a short draft of the research proposal highlighting the aim and objectives of the study along with a letter of endorsement from the university to the selected managers.

A total of 36 semi-structured interviews (including four respondent validation interviews) were conducted across industries and hierarchical levels over a period of six months (see table 5 below). The majority of these interviews (a total of 24) were face-to-face, and the rest (a total of 12) were conducted virtually via Zoom (a reliable video communication program). The face-to-face interviews took place in the participants' setting. Zoom interviews were conducted where face-to-face interviews were not possible due to the Covid-19 pandemic. Nowadays, virtual interviewing has become essential when in-person job interviews were not made possible due to the social distancing orders associated with the pandemic. Zoom allowed the researcher to communicate in real-time with participants from a large geographical area (see Archibald *et al.*, 2019). Compared to Zoom interviews, the face-to-face interviews were more expensive and time-consuming as they required travelling to participants' workplaces where the interviews took place. That said, the face-to-face interviews were more interactive, allowing the researcher to better observe participants' body language and other non-verbal signals (see Saarija and Brat, 2021). All the interviews were recorded using an audio-taping device. "Audiotapes certainly provide a more accurate rendition of any interview than any other method" (Yin, 2003, pp. 92). The interviews lasted from 45 minutes

to 60 minutes. Further, during the interviews and as participants shared their stories and experience, the researcher recorded his observations and thoughts on a field notebook. The use of the field notes and memos was so beneficial during the data collection process, and also in the subsequent stage (mainly the analysis stage). Table (5) below shows organisational positions of participants and the sectors they are operating in.

Position	Sector	Number of Interviews	Code
Operations and Middle Management Positions			
Technical Manager I	Telecommunication	1	OM1
Technical Manager II	Telecommunication	1	OM2
Continues Improvement Manager	Manufacturing and Engineering Services	1	OM3
Information Technology Manager	Manufacturing and Engineering Services	1	OM4
Propositions Manager	Financial and Professional Services	1	OM5
Customer Service Manager	Financial and Professional Services	1	OM6
Account Manager	Financial and Professional Services	1	OM7
Branch Operations Manager/ Customer Service Manager	Banking	1	OM8
Customer Service Manager	Banking	1	OM9
Project Manager I	Ecosystem Services	2	OM10
Project Manager II	Ecosystem Services	1	OM11
Project Manager I	Advanced Technology Manufacturing and Services	1	OM12
Project Manager II	Advanced Technology Manufacturing and Services	1	OM13
Operations Manager I	Energy	2	OM14
Operations Manager II	Energy	1	OM15
Service Improvement and Innovation Specialist	Energy	1	OM16
Field Service Manager	Waste Management	1	OM17
Business Development Manager	Waste Management	1	OM18
Events and Venues Manager I	Hospitality and Events	1	OM19
Events and Venues Manager II	Hospitality and Events	1	OM20
Continues Improvement Manager	Healthcare	1	OM21
Learning and Development Manager	Healthcare	1	OM22
Senior Management Positions			
Strategy and Innovation Manager I	Telecommunication	2	S1
Strategy and Innovation Manager II	Waste Management	1	S2

Internal Consultant on General Management Leadership Development Program	Healthcare	1	S3
Sustainability and Quality Manager	Energy	1	S4
Associate Partner and Director	Financial and Professional Services	1	S5
Chief Transformation Officer	Financial and Professional Services	2	S6
Deputy Director	Ecosystem Services	1	S7
Senior Project Manager	Manufacturing and Engineering Services	1	S8
Director Strategy and Innovation	Advanced Technology Manufacturing and Services	1	S9
Deputy Director and Associate Partner	Hospitality and Events	1	S10
		Total= 36	

Table (5): Organisational Positions of Participants

3.3.6 Data Saturation

Choosing a suitable size is an area of debate in qualitative research. Sample composition and size play a crucial role in determining qualitative research's quality and trustworthiness (Vasileiou *et al.*, 2018). In this study, the sample size was not arbitrarily chosen; it was determined by data saturation. Data saturation is undoubtedly the most widely used principle for determining sample size and evaluating its sufficiency (Vasileiou et al., 2018; Moser and Korstjens, 2018). Data saturation in this study was reached by the twenty-fourth interview. In other words, no new analytical data and codes emerged after that interview. The scope of the study, the structure of the interviews questions, the data collection method (in-depth semi-structured interviews and indirect observations), the study design, and the strategy for recruiting participants (purposive and snowball samplings) adopted in this study contributed to providing richly textured data and resulted in obtaining data saturation earlier than expected (for more information on data saturation, see Vasileiou et al., 2018 and Fusch and Ness, 2015).

3.3.7 Validity Test

The notion of validity has been controversial in qualitative research (Maxwell, 2013). Several qualitative scholars don't take validity into consideration, because according to them, it's not applicable for qualitative research, and that's because validity is strictly tied to the way quantitative

scholars view the “real world” (i.e., Denzin and Lincoln, 2005). To solve this issue, scholars categorise validity into two: internal validity and external validity. Internal validity refers to the correctness, credibility of a description, conclusion, explanation, and interpretation of data (Maxwell, 2013). Validity is associated with the process of gathering data and the verifications of the data interpretation (Bryman, 2004) and conceptualises the degree to which the findings of the research address the phenomenon under investigation (Denzin and Lincoln, 1994). On the contrary, external validity is the extent to which research findings can be generalised to other settings (Yin, 2003; Denzin and Lincoln, 1994).

As discussed earlier, internal validity encompasses both the process of gathering data and the interpretation of data (Bryman, 2004), and both can be hindered by the subjectivity (research bias and reactivity) of the researcher (Maxwell, 2013). For example, the interpretation of the data might be shaped by the researcher's experience, prejudices, and orientations (Lincoln and Guba, 1985). Additionally, the researcher might misuse data to fit specific propositions, patterns, and theories (Miles and Huberman, 1994). In his endeavour to minimise the main threats to internal validity, namely research bias and reactivity, the researcher sought to obtain respondent validation.

Respondent validation was also obtained by the researcher to minimise the subjectivity and the bias of the researcher and to rule out the possibility of misinterpreting and falsely reporting the meaning of what the participants said during the interviews and to (see Maxwell, 2013 and Yin, 2003). To obtain respondent validation, the researcher followed solicited feedback on the study's findings from four key participants (refer to table 5).

Regarding external validity, the researcher acknowledges that generalisability is not compatible with qualitative research; however, it can be argued that sampling from across sectors combined with “saturation” may help in drawing conclusions that are broader than the source of the primary data in this study, or in other words, generalising beyond the case interviews. Additionally, rather than testing a theory as in quantitative studies, the researcher argues that the findings of this study contribute to the general theory of ambidexterity and theoretical premises of individual ambidexterity, and also contribute to our understanding of the orchestration of managerial

ambidexterity, and therefore play a part of constructing a theory. Scholars referred to this as "analytical generalization" or "non-statistical generalization" (i.e., Yin 2003).

3.3.8 Reliability

Reliability implies that the operations of the study, such as the data collection procedures, if repeated, will yield the same results (Yin, 2003). The idea behind reliability "is to be sure that if a later investigator followed the same procedures as described by an earlier investigator and conducted the same case study all over again, the later investigator should arrive at the same findings and conclusions" (Yin, 2003, pp.37). And this is different from "replicating" the results of one case by doing another case study to increase generalisability that is associated with external validity (Yin, 2003). It has been argued that research design and data collection methods in qualitative research make reliability difficult to achieve (Bryman, 2004) because, as stated earlier, the interpretation of data is shaped by the researcher's background and experience (King, 1994). To overcome this issue, in addition to having the findings of this study reviewed by key participants to reduce the likelihood of falsely reporting as suggested by Yin (2003) and Maxwell (2013), the researcher documented the procedures had been followed and led to the findings of the study to allow later investigators to repeat this study and hopefully arrive at the same findings.

3.4 Ethical Concerns

Addressing ethical issues that may arise in qualitative research studies is essential (Rossman and Rallis, 1998). To protect the right and confidentiality of the participants, the following procedures were taken into consideration:

1. The researcher explained the purpose of the study to the participants and, where needed, provided them with some secondary material to read to raise interest and awareness of the importance of the study.
2. The researcher obtained the participants' consent prior to conducting the interviews.
3. The researcher made the participants aware of their right to withdraw from the interview at any time.

4. As requested by the participants, the researcher kept their identities anonymous in the study.
5. The researcher made the participants aware of the data collection devices used in this study, and this includes manual notes and an audio-taping device.
6. The researcher made clear that data analysis, transcriptions and recommendations will be available for the participants where they ask for them.

3.5 Pilot Study Experience

A pilot study is a smaller version of the main study and aims to enhance the success of the main study and potentially help avoid ill-informed studies (Thabane *et al.*, 2010). Scholars shed light on the vital role piloting plays in understanding a phenomenon under investigation. For instance, Maxwell (2013, pp.66) quoted Light et al. (1990, pp.213), "no design is ever so complete that it cannot be improved by a prior, small-scale exploratory study". Maxwell (2013) argues that researchers can use the pilot study to test their ideas, methods, and explore their implications. Furthermore, according to Yin (2003), piloting will help researchers to refine their data collection plans regarding both the content of the data and the procedures and processes adopted.

The researcher acknowledged the importance of piloting and was determined to conduct this experimental study before involving in the main study. Conducting a pilot study was deemed useful because it allowed the researcher to develop a better understanding of the notion of ambidexterity, to test the usefulness of the research philosophy, the functionality and the applicability of the research instruments adopted in meeting the objectives of the study, as well as to detect any possible problem that may arise in collecting primary data for the main study.

Six semi-structured interviews with managers from across sectors (public sector, private sector and third sector) in the United Kingdom were conducted in March 2019. At the time of the interviews, participants were active members of their organisations and directly involved in strategic planning and decision making (see table 6). The interviews lasted between 45 minutes to 60 minutes and took place in the participants' setting. In line with the ambidexterity literature, a detailed outline of interview themes and questions was developed before the interviews. Ethical considerations were taken into consideration, and written consents from the participants were obtained before the interviews. All the interviews were managed and coded using both the NVivo

12 computer-assisted data analysis software (CAQDAS) and MS word. To analyse and code data, thematic analysis and lumping technique were adopted, respectively.

Sector	Specialisation
Private	Power Supply
Third Sector	Charity work
Public	Education
Private	Events and Venues
Public	Environmental Regulator
Private	Logistics

Table (6): Sectors involved in the pilot study.

One of the main differences between the pilot study report and the main study is that the former should be explicit about the lessons learned for both research design and the processes report (Yin ,2003). The evaluation of the pilot study revealed some findings that the researcher then employed to enrich the main study. These findings can be classified into three classifications and dimensions: research context, interview questions and data analysis. The pilot study interviews revealed that managers who were operating in the third sector were less confronted with the pressure to explore, and in a best-case scenario, they tended to explore along the supply chain, Thus, this sector was excluded from the main study. The rationale for excluding the third sector was driven by the need to recruit participants who can provide the richest information, have the knowledge on the phenomenon under investigation, and can reflect and articulate (see Moser and Korstjens, 2018).

Moreover, piloting allowed problems associated with the number, the contents, and the types of interviews questions to surface and then be modified before being extensively involved in the main study. Regarding the analysis, the pilot study revealed that the four pre-defined themes under investigation are interrelated and interdependent. For instance, an element can act as an enabler to another. The findings of this study confirm prior research conducted by Gibson and Birkinshaw (2004) which suggests that when organisations trust their employees, employees tend to stretch their work and look for opportunities beyond their task line, and also by Haj Youssef and Christodoulou (2017) who find that uncertainty tolerance has a positive and significant effect on managerial discretion. This interdependency caused difficulties in identifying four distinct constructs of organisational context using the four pre-defined elements/themes (discipline, stretch, support, and trust), which resulted in some data associated with organisational context to fit in more than one theme/element. To overcome this issue, the researcher sought to maintain

definition consistency for each element/theme throughout the main study and focus on specific contents of each element/theme.

Further, the pilot study findings reveal that splitting coding overwhelms the analysis and was thus excluded from the main study. Furthermore, the lumping technique was more compatible with the thematic analysis and was therefore adopted by the researcher. To learn more about the three dimensions mentioned above, refer to appendix (1).

3.6 Data Management

All the interviews were recorded using an audio-taping device. “Audio tapes certainly provide a more accurate rendition of any interview than any other method” (Yin, 2003, pp. 92). Further, during the interviews, the researcher used a field notebook to record observations related to participants’ behaviour and record details of his feelings, experience, and perceptions. To avoid losing the non-verbal contents of interviews, such as the impression captured by the researcher about the interviewees and their natural setting, the researcher sought not to leave more than one day gap between collecting data from participants and transcribing and coding this data. The NVivo 12 computer-assisted data analysis software (CAQDAS) and MS word were employed to manage the data. NVivo 12 made it easier for the researcher to store, organize, and code data, create themes and build relationships. Moreover, NVivo 12 made handling large scale data easy and speedy as compared to manual coding. On the other hand, MS Word was used to create simple tables when the researcher was overwhelmed by the data and the codes in NVivo 12.

3.7 Data Analysis

There are three commonly used approaches for analysing data in qualitative research; these are content analysis, thematic analysis, and grounded theory. In this research, thematic analysis was used to transcribe and analyse data. The researcher adopted the thematic analysis approach for three reasons. Firstly, themes in this study had been created and deduced from the review of contextual ambidexterity literature (discipline, stretch, support and trust) not from the raw data as in the case of grounded theory, nor based on the frequency of their occurrence as in the case of content analysis. Secondly, the thematic analysis approach allows for analysing narratives and stories of those who experienced them (Sparker, 2005). Thirdly, thematic analysis is compatible with the phenomenological premise (Holloway and Todres, 2005), which fits with the

epistemological stand of the researcher. The phenomenological premise aims to better understand the motives of actors and allows the researcher to see the world from that micro-view point through being deeply involved in their experience (Holloway and Todres, 2005). Refer to appendix (3) for the outcome of the thematic analysis.

3.7.1 Thematic Analysis

The thematic analysis represents the process of analysing research data according to relationships, commonalities, and differences across data (Gibson and Brown, 2009). Themes can be created before, during, or after data collection (Denzin and Lincoln, 2000). In this study, themes and sub-themes (contents of the main themes) associated with organisational context were created before the data collection process. They were simply deducted from reviewing ambidexterity literature, mainly from Gibson and Birkinshaw's (2004) framework. The main themes of organisational context are **discipline, stretch, support and trust**. Contents of these themes (sub-themes) were also deducted from ambidexterity literature. Themes associated with managerial behaviour were also deducted from ambidexterity literature. These themes are **exploratory behaviour** and **exploitative behaviour**. Contents of these themes (sub-themes) emerged from the data. Further, themes associated with common characteristics and skills of ambidextrous managers were either deducted from Mom et al., (2009 and Gibson and Birkinshaw (2004) (i.e., multitasking) or emerged from the data.

Enthusiasts of qualitative research propose several methods for conducting thematic analysis. In this study, the researcher adopted Gibson and Brown (2009), which suggest that there are six stages to conducting thematic analysis: 1) becoming familiar with the data, 2) generating initial codes, 3) searching for themes, 4) reviewing themes, 5) defining and naming themes, and finally, 6) producing the report of previous stages. In the first stage of analysis, the researcher listened carefully to interviews audio while transcribing them to build a generic and overall understanding of the topic under investigation. Then, the researcher identified statements that were associated with organisational context, respondents' behaviours and characteristics. The aim at this stage was to find commonalities in the statements, which then allowed the formulation of the first-order

codes. The following section discusses the coding process employed in this study and yields its findings in detail.

3.7.2 Coding Process

After reading the transcribed text thoroughly, as suggested earlier in the pre-coding stage, the next stage of data analysis was to code the transcribed data. Following Saladana's (2016) suggestion, the researcher started coding as he collected and formatted the data, not after all the fieldwork had been completed. This technique aims to avoid losing preliminary words or codes that may emerge during the interviews. During coding, transcribed data were carefully read to identify possible codes. Coding was not done line by line as in "splitting", but rather was done through the 'lumping' technique because not everything collected in the field was relevant to the study (refer to the pilot study section). Saladana (2016, pp.24) quoted Stern (2007), "I never do a line-by-line [coding] analysis because there is much filler to skip over. Rather, I do a search and seizure operation looking for cream [that rises to the top] in the data".

To code data, three major steps were followed: 1) Pre-coding process (preliminary coding): this process involved highlighting words, phrases, and passages that represented "codable moments" worthy of attention and associated with exploitative behaviour (see Saladana, 2016, pp.20). To guarantee more flexibility during the first round of the coding process, a mix of descriptive and In Vivo coding were employed. The choice of the "codable moments" was not random but purposeful to serve the aim of the study. The pre-coding process helped the researcher to draw a link between the raw data and codes. During this stage, the researcher managed to build themes around exploration and exploitation, and around the four elements of organisational context (discipline, stretch, support and trust), and also managed to identify barriers and enablers of managers' ambidextrous behaviour, 2) Creating first-order codes and provisional categories: this process involved refining the researcher's first cycle of choices and searching for interconnections between words, phrases and passages highlighted earlier in the preceding step before drawing on commonalities between them and classifying them together to form first-order codes and provisional categories, and lastly, 3) Aggregating theoretical dimension: building on insights from the previous step the researcher involved in the investigation of the dimensions underlying these

categories and concepts in an attempt to understand the connections between them and how they contribute to the big picture.

The coding process for managerial behaviour (exploration and exploitation) towards organisational context was not straightforward. The challenge the researcher faced at this stage was to draw a line between exploration and exploitation. Prior research suggests that the lines between exploration and exploitation are not always clear (Lavie et al., 2010) because the two activities are interrelated. For example, when individuals perform a repetitive task, they also engage in some experimentation, and when individuals engage in exploration activities, they sometimes use established procedures (Farjoun, 2010). This interrelation results in facing difficulties in identifying where adaptive learning that is associated with exploitation activities stops, and generative learning that is associated with exploration activities start and relies to a great extent upon the subjectivity of the researcher (Sadler-Smith et al., 1999) as cited in Cope (2003). To overcome this issue, maintaining consistency of definition for exploration and exploitation, immersing more into data, and involving in a few rounds of coding (pre-coding stage) was crucial. Additionally, to question the underlying reasons for the participants' behaviour, rather than being a passive researcher, the researcher played an active role in helping the participants to reflect more deeply on the memorable events associated with their behaviour and encouraged them to use a storytelling approach to answer the questions where needed (See Cope, 2003). The coding process for organisational context (discipline, stretch, support and trust) was not straightforward because, as stated earlier, these themes were interrelated. To solve this issue, the researcher had to immerse more into data, involve in few rounds of coding (pre-coding stage), maintain keywords and definition consistency of the themes throughout the study, and focus on a limited number of sub-elements. The coding process for common characteristics of managers was challenging and that's because some of these characteristics were not previously defined, which resulted in creating too many codes that were not necessarily associated with the research question. To overcome this issue, some codes were either deleted, renamed, or became a subcode for the main code. This made the analysis process more efficient and lessened the noise that was created by the existence of either irrelevant codes or too many main codes, and eventually resulted in final themes. It is worth noting that in the case of the pre-defined themes, there was no need for a second cycle coding. Saladana (2016, pp.185) argues, "componential and theme analysis do not necessarily require

second cycle coding, but instead rely on synthesizing that analytic work from domains and taxonomies developed thus far, coupled with any necessary additional data collection to clarify and confirm the categories' relationships".

Once all the interviews were coded and categorized into themes, the researcher sought to identify relationships between themes. Saladana (2016, pp.185) quoted Spradley (1979), "theme analysis involves a search for the relationship among domains and how they are linked to the culture as a whole". To succeed in that endeavour, the researcher employed causation coding. Causation coding refers to reasons and causal explanations and aims at identifying motives, events and context underpinned and affected managers' behaviour (Saladana, 2016). By comparing the research data on each organisation separately and by undertaking an in-depth cross-case analysis and an in-depth cross-level analysis, it became possible to understand how the tension of ambidexterity was perceived and reconciled by managers, and most importantly, explore the organisational context factors that influenced managers' ability to manage this tension.

Research Methodology Summary

In this chapter, the researcher highlighted that qualitative research methodology was the most appropriate methodology to meet the objectives of this study. The choice of qualitative research methodology was also based on the ontological and epistemological stand of the researcher who believes that reality is socially constructed and based on subjectivity. Further, thematic analysis was employed as the research approaches to data analysis. Regarding data collection, the researcher aims to explore the impact of organisational context and individual skills and characteristics on a manager's ability to demonstrate ambidextrous behaviour. To succeed in that pursuit, 36 semi-structured interviews with managers from across hierarchical and sectors were conducted to obtain insider perspectives. To increase the validity of the data, the researcher sought to obtain respondent validation. Based on the research methodology adopted in this study, the following chapter presents how findings and analysis emerged.

Chapter 4: Analysis and Findings

In the previous chapter, the research philosophy, the research design, the approaches to data collection and data analysis adopted in this study were discussed. This chapter presents and discusses the study findings by referring to related strategic management literature, mainly the ambidexterity literature. This chapter presents the findings that aim at answering the three research questions of this study:

1. How is the conflict of exploitation and exploration activities reconciled by individual managers?
2. What are the individual competencies and skills that influence managers' capacity to reconcile the tension between exploration and exploitation?
3. How does organisational context, which comprises discipline, stretch, support and trust, shape managers' ambidextrous behaviour?

To examine organisational context, the study adopts Gibson and Birkinshaw's (2004) framework, which suggests that for a business unit to become ambidextrous, four attributes must be present in the context: discipline, stretch, support and trust. This study takes the investigation further to a lower level of analysis (individual level). It examines how these attributes shape managers' ambidextrous behaviour, or in other words, shape managers' capacity to reconcile the tension between exploitation and exploration. Once all the interviews had been coded in NVivo 12 Pro, the researcher undertook two types of analysis: cross-case analysis (cross-context analysis) followed by cross-level analysis. To answer the research questions and enrich findings, the researcher sought to adopt both analyses. The cross-case analysis is deemed useful when examining themes, commonalities, and differences across cases. The cross-case analysis in this study aimed at identifying exploratory and exploitative behaviour of managers operating in different contexts, and also identifying how organisational context influences managers' ambidextrous behaviour, whereas the cross-level analysis aimed at identifying the heterogeneity in managers' reaction (behaviour) towards their organisational context and its relation to their position in the corporate hierarchy. The use of NVivo software allowed the researcher to draw out patterns from codes and identify relationships between themes (see NVivo coding tree in the appendix). By comparing the data generated from the interviews, it became possible to understand

the impact of organisational context on managerial ambidexterity and understand how managers perceive and reconcile the tension between the conflicting demands of exploitation and exploration activities. The findings of this chapter are threefold:

1. Findings associated with managerial behaviour relative to exploitation, exploration, and ambidexterity.
2. Findings associated with the role of organisational context in shaping managers' exploitative, exploratory, and ambidextrous behaviour.
3. Findings associated with skills and characteristics that facilitate managing the tension between exploration and exploitation.

The behaviour associated with exploration and exploitation activities demonstrated by managers that emerged through the cross-case and cross-level analysis is presented next.

Ambidextrous Behaviour of Managers

In the pursuit to identify exploitative and explorative behaviour of participants, the researcher conducted cross-case and cross-level analyses. To code data, three major steps were followed: 1) Pre-coding process (preliminary coding): this process involved highlighting words, phrases, and passages that represented "codable moments" worthy of attention and associated with exploitative behaviour (see Saladana, 2016, pp.20). The choice of these moments was not random but purposeful to serve the need of the study. The pre-coding process helped the researcher to draw a link between the raw data and codes. During this stage, the researcher managed to build themes around exploration and exploitation and also managed to identify barriers and enablers of managerial ambidexterity. It must be noted that causation coding took part in this stage. Causation coding aims at identifying motives, events and context underpinned and affected managers' behaviour (Saladana, 2016), 2) Creating first-order codes and provisional categories: this process involved refining the researcher's first cycle of choices and searching for interconnections between words, phrases and passages highlighted earlier in the preceding step before drawing on commonalities between them and classifying them together to form first-order codes and provisional categories, 3) Aggregating theoretical dimension: building on insights from the previous step the researcher involved in the investigation of the dimensions underlying these

categories and concepts in an attempt to understand the connections between them and how they contribute to the big picture.

The coding process associated with managerial behaviour (exploration and exploitation) was not straightforward. The challenge the researcher faced at this stage was to draw a line between exploration and exploitation. Prior research suggests that the line between exploration and exploitation is not always clear, and that's due to the interrelation between the two activities (i.e., Lavie *et al.*, 2010). For example, when individuals perform repetitive tasks, they also engage in some experimentation, and when they engage in exploration activities, they sometimes use established procedures (Farjoun, 2010). This interrelation results in facing difficulties in identifying where adaptive learning stops and generative learning starts, and this relies to a great extent upon the subjectivity of the researcher (Sadler-Smith et al., 1999 as cited in Cope, 2003). To overcome this issue, apart from maintaining definition consistency, immersing more in data, and involving in a few rounds of coding (pre-coding stage) were crucial. Additionally, to question the underlying reasons for managers' behaviour, rather than being a passive researcher, the researcher played an active role in helping participants reflect more deeply on the memorable events associated with their behaviour. The researcher also encouraged participants to use the storytelling approach to answer questions where needed (See Cope, 2003).

The following sections identify specific exploitative, exploratory, and ambidextrous behaviour of managers. It also identifies elements of organisational context that shape these behaviours along with personal attributes that facilitate them.

4.1 Exploitative Behaviour of Managers

Prior research suggests that exploitation is associated with terms like implementation, refinement efficiency, execution of a chosen path and production (i.e., March, 1991; Gupta et al., 2006; Ojha et al., 2018; Wilden et al., 2018). Based on the data collected from participants, three exploitative behaviours demonstrated by them were captured. These behaviours are implementation, refinement, and reactiveness. The three behaviours took part in the daily routine of managers and were driven by the need to defend current operations and competencies from the threat they faced from rivals. That said, the data shows that managers operating at the lower level of the corporate hierarchy demonstrated a high level of exploitative behaviour as compared to their colleagues at the higher level of the hierarchy. This finding is consistent with the result of Mom et al. (2007)

and Mom et al. (2009) which suggests that managers at the lower of the hierarchy are expected to engage more in exploitation activities because their focus is primarily centred on operational efficiency. An overview of the data structure based on the coding process is presented at the end of this section (see table 7). A presentation of the findings on exploitative behaviour demonstrated by managers is presented next.

4.1.1 Implementation

The implementation of the strategy lies within the responsibility of managers, which involves focusing on achieving short-term goals (Mom et al., 2007; Mom et al., 2009). The data shows that all managers engaged in activities associated with the delivery and implementation of the strategic plans in their organisations. Meeting all expectations generated by their implicit or explicit commitment to the business was one of the aims the majority of the interviewed managers sought after. For instance, managers had to align themselves to the realizations of the milestones assigned to them. As an example, a Project Manager (OM12) noted:

"*I have a particular milestone that I must meet. My main time here is dedicated to particular slots that are associated with the milestone because I have to be responsible for a number of tasks…*"

The research data suggests that administrative work, monitoring subordinates' performance and solving current business issues were daily activities managers engaged in and aimed at maintaining efficiency, delivering support, and obtaining operational excellence. Managers did not only align themselves to the realizations of the objectives assigned to them, but they also had to ensure that their teams were aligning too. For instance, managers sought to run regular meetings with their team members to make sure everything was on track, progressing and that subordinates were fully committed and aligned to established plans and procedures. Guiding and supporting team members in their delivery pursuit were the main aim of these meetings. The following two quotations support this suggestion.

""*I need to manage people's attendance records and I need to check on that on a daily basis. Beyond that there is a matrix I will be looking at for the team performance and what the team is*

engaging in and probably spend the first couple of hours talking to the people about what's going here, what's going there, kind of daily meeting daily status". (Operations Manager, OM14)

"*Our work tends to be more overarching, more strategically type intervention. Beyond that I am also supporting team members doing work with them, helping them*". (Project Manager, OM13)

The nature of some industries justified the need to adhere to established procedures and practices associated with the government's legislation. As an example, a Technical Manager (OM1) noted:

"Because of the nature of the industry there is a lot of emphasis on safety aspects around what we are doing. There is a lot of legislation and control, and procedural aspects involve and apply".

4.1.2 Refinement

Refinement is a means to enhance and maintain a desired level of excellence to current products and services. The research data suggests that managers engaged in the improvement of current practices, processes, and products. Managers noted how their improvement on current practices and processes aimed at maintaining the desired level of excellence of existing products and services. As an example, a Project Manager (OM10) noted that reaching out and meeting with senior managers to inquire about emerging issues associated with current performance and operations and then setting an action plan with his operations team to deliver improvement and solve these issues were part of his daily routine.

"Beyond that, there are mixed of things and part of what I do I like to call prospecting so I am trying to find projects in the business for the team so will spend the half of my day engaging with senior stakeholders like directors and head of functions talk to them to reach out and speaking to them about the issues they have and the way that business improvement team can work with their business teams to support and deliver improvements."

Knowledge gained from past experiences played a vital role in running and refining operational activities and projects. The quotation below suggests that in their refinement endeavours, managers had to rely on their knowledge and experience that were gained from different settings.

As an example, a Business Development Manager (OM18) noted:

"*My day-to-day operational work is on work contracts, waste management and asset and operational intelligence gathering across industrial customers and energy contracts so am using the skills I gain within the water business, and I apply to other projects*"

This finding is consistent with prior research which links current knowledge and learning from experience to exploitation activities and argues that exploitation is the reliance on knowledge and lessons gained from experience (i.e., March, 1991; Levinthal and March, 1993; Lavie and Rosenkopf, 2006; Fang and Levinthal 2009).

Managers were aware of the vital role technical training plays in the refinement pursuit, specifically in refining their team members' knowledge and equipping them with the skills needed to perform and deliver. During the interview sessions, some managers shared with the researcher how they were given the autonomy to establish technical training in their departments. The training aimed to improve the subordinates' practical and hard skills to perform their daily job tasks.

"*So, for the team I picked up there never been any established training so what am doing there is a guy involved in improvements, with whom I sat and agreed on the training and developments my team need to deliver*" (Project Manager, OM13)

4.1.3 Reactiveness

Reacting to emerging issues and demands was a behaviour orchestrated by managers across hierarchical levels on a daily basis and was underpinned by the need to protect and defend current operations and competencies. Teece (2007) suggests that managers tend to react to pressure or threats in their domestic market by building defences against their competitive forces. The data

presents support for this assumption. It shows that following established approaches was a means to effectively react to urgent issues associated with current operations and competencies. As an example, a Technical Manager (OM2) noted:

"In term of technical solutions some of them dictated by urgency if you got an immediate thing or a high priority thing you do not have the luxury of thinking about alternative solutions"

This reactive and defensive mode was dictated by the lack of uncertainty in the market combined with the lack of preparedness to respond to the new complex reality. Therefore, maintaining current operations and making sure to continue serving existing customers were paramount and served as a means to survival. That data shows that prioritizing urgent stuff that requires immediate action was a strategy widely adopted by managers, especially during the outbreak of COVID-19. Urgent tasks put managers in a reactive and defensive mode. As an example, an Internal Consultant on General Management Leadership Development Program (S3) explained how her focus during the outbreak of COVID-19 had shifted from developing strategic goals and plans to guard current operations by offering support to employees who are in direct relations to existing operations.

"*I currently work supporting the COVID-19 mailbox for employees and customers, including an open link on our corporate website. I start my day triaging this and answering questions as well as solving issues associated with current operations. This is administrative and is a new role that I have taken on in the first eight weeks to address the current situation.*"

Readiness to react to unexpected events is a capability the managers developed from working in a dynamic environment where certainty tends to be at its lowest level. For instance, an Events and Venues Manager (OM19) noted:

"*From an operational point of view, if there is an urgency and need to be fixed then there will be a little bit more of an investigative approach and taking a bit of time to look at the situation and trying to make some structural approach to fix it. Nowadays the decision would probably lie with me if it's in my area of expertise*".

Reacting to the change in the external environment necessitated the need for refining current

practices and methods sometimes. A Sustainability and Quality Manager (S4) commented on this:

"….. we are ensuring that we are responsive to change so if there is something that needs to be changed we change it where needed and accompanied with justifications".

During the interview sessions, some managers shared their views on how the excessive engagement in exploitation-related activities, such as reactiveness to urgent matters, was at the expense of forward-thinking and maintaining a balance between short-term and long-term goals. For instance, a Strategy and Innovation Manager (S1) expressed his resentment about this and stated that despite expectations, operations consumed a lot of his time.

"The international function has a huge number of unexpected or emerging activities on the daily basis. Just things happen at all times in the overseas sector, and we need to react to them so that consume a lot of my time and then emails at home and here. Trying to stay on the top of things is a daily challenge…..I do far more operational activities than I would ever be imagining doing"

In summary, managers across the corporate hierarchy demonstrated the behavioural capacity to align to current projects and investments plans and processes. Their exploitative behaviour involved complete alignment to current processes and procedures, refining and improving existing products and services, and reacting to urgent and unexpected issues and matters associated with current operations and investments. It was also evident that operations and middle managers were more committed to maintaining a high level of efficiency and alignment (exploitation activities) compared with their seniors in the higher level of the hierarchy, and that was due to the nature of their jobs that is much associated with strategy implementation. The three exploitative behaviours demonstrated by managers were shaped by organisational context prevailed in the workplace, and this includes discipline, stretch, and technical training (an element of support). How organisational context influenced managers' tendency to incline towards exploitation is discussed in section (4.4). The overview of the data structure for exploitative behaviour is presented below in table (7).

Exemplar Quotes	Theoretical Categories	Aggregate Theoretical Dimension
"I am now working on joining two different teams together to make out of them a business improvement team but if I project what a		

typical day is I can say some administrative of time attended to the team and that is usually happening at the beginning of the day….." (Project Manage, OM10) "*I* raise red flags *with anything concerning the health and safety because if anything goes wrong the damage is huge. Therefore, is such a case there will be no hesitation there will be straight away, flagging to my line manager flagging to the department director and to the health and safety team that there are things that need to be fixed and I would imagine that they will react quickly to that" (*Events and Venues Manager, OM20) *"Administrative work is part of what I daily do" (*Operations Manager, OM15*)* *"Typical day: overseeing cash transactions (with authorizations over a specified amount), managing customers' requests, looking for new business (sales)"* (Branch Operations Manager, OM8) *"I keep an eye on the long-term goals but my working day is pretty much dictated by what is happening on the site on that particular time"* (Events and Venues Manager, OM20)	Implementation	Exploitation
"I have spent time talking to my boss, to the head of functions, to my director, to other people in the teams to facilitate the functions delivery which is about quality investigations, quality issues, actions and….." (Project Manager, OM13) "*We always make training for our team to improve their skills"* (Business Development Manager, OM18)	Refinement	
"The culture here is very reactive and responsive so if there is a fire they will call us to put it out and then put out another fire…" (Project Manager, OM13)	Reactiveness	

"*They never thought what are the reasons for those fire so we could prevent them in the future so it's not so preventable it's not so proactive and that's impacted on how the business respond because they have a lack of detective data, the way they gather data is not great, their data analysis is not great"* (Project Manager, OM13) *"Good planning is good but no matter how good you plan but there is always a last-minute information or event that might change everything" (*Events and Venues Manager, OM20) *"People here do not have time because they focus on urgent matters rather than the important ones"* (Chief Transformation Officer, S6)		

Table (7): Overview of Data Structure for Exploitative Behaviour.

4.2 Exploratory Behaviour of Managers

Teece (2007) argues that building defences against competitive forces are no longer effective and far too reactive for long-term success. Instead, organisations must learn how to become explorative and proactive. In his paper on dynamic capability, Teece (2018, pp.43) also argues that organisations must be able to align their resources with customers' needs and aspirations, and this can only be obtained when they learn how "to proactively reposition to address yet newer threats and opportunities as they arise". In the literature, exploration is usually associated with terms like risk-taking, search for a new path, experimentation, innovation, flexibility and discovery (March, 1991; Levinthal and March, 1993). Based on the data collected from participants, two exploratory behaviours demonstrated by them were captured: forward-thinking/ proactiveness and driving change. These behaviours were part of the explorative managers' daily routine and were shaped by their organisational context. The data shows that managers who demonstrated exploratory behaviour were aware that maintaining the status quo and focusing excessively on exploitation-oriented activities, such as productivity and efficiency, were no longer enough to maintain competitiveness, prosperity, and survival in the volatile environment they operated in.

Contrary to exploitative behaviour, exploratory behaviour was not greatly demonstrated by all managers. That was due to the organisational context managers operated in, which will be discussed in section (4.3). The data also shows that managers at the higher level of the corporate hierarchy demonstrated a high level of exploratory behaviour as compared to their colleagues at the lower level of the hierarchy. This finding confirms that of Mom et al. (2007) and Mom et al. (2009) which suggests that managers at the higher level of the hierarchy are found to engage more in exploration, and that is due to the strategic role they play.

In this section, based on the data collected from participants, exploratory behaviour demonstrated by managers were captured and presented. Forward-thinking, proactiveness, and driving change took part in the daily routine of explorative managers. The data shows that exploratory behaviour can be classified into two types. The first one revolves around searching for innovation within the current scope of operations (along the supply chain/the same trajectory) and aims at exploring new supply chain solutions, and the second one revolves around searching for innovation beyond the current scope of operations (new trajectory) to escape from falling into the competency trap. That said, it must be noted that they both aimed at obtaining resiliency and adaptability in an environment characterised by fierce competition and uncertainty.

Considering the daily routine of operations and middle managers that is very much operational oriented, and because exploration along the supply chain aims at seeking novel and new approaches to solving supply chain problems, which will eventually increase supply chain agility and readiness to address change in the environment (i.e., searching for new technologies and approaches), the researcher decided to accommodate both types of exploration in this study. To succeed in that endeavour, the researcher adopted a broader conceptualisation of exploration that encapsulated the two types of activities. An overview of the data structure based on the coding process is presented at the end of this section (see table 8). A presentation of the findings on exploratory behaviour demonstrated by managers is presented next.

4.2.1 Driving Change

Consistent with prior research, the data shows that striving for change and experimentation was a behaviour demonstrated by exploratory managers (i.e., Mom et al., 2007; Mom et al., 2009; Gibson and Birkinshaw, 2004; March, 1991; Levinthal and March, 1993). During the interviews, explorative managers expressed that they perceived change as an opportunity rather than a threat.

Therefore, the data reveals that they tended to have a positive attitude towards new data, information, and trends. An Account Manager (OM7) noted on this:

"*Administrative work is part of what I daily do but what gets me excited is understanding and scoping bits of work. For instance, I love getting data, I love data analysis, watching trends and creating models and the context matters for sure but this is how my mind works .....I am an explorative and dynamic person*".

This finding confirms prior research which suggests that explorative managers tend to refine and renew their knowledge base by acquiring and processing different kinds of information (i.e., Mom et al., 2009; Sheremata, 2000; Jansen et al.,2005).

The data also shows that explorative managers believed that change is a way of living. Therefore, both creativity and thinking about change were part of managers' daily routines. For instance, an Internal Consultant on General Management Leadership Development Program (S3) noted:

"*I think about change every day. An example, I am looking for a project for customers to help with their environmental sustainability through offering programs. I have to design it all and research and come up with ideas. Not on my own, with support but I need to find the people to help me. It is part of my job. Previously I worked in R&D developing products so was always thinking of new ideas for products etc.*" (Internal Consultant on General Management Leadership Development Program)

In one of the interviews, a Project Manager expressed how passionate about change he is. Although he was newly appointed, he managed to spot issues in the system and initiated a change to overcome them. For instance, he made an initiative that positively impacted his team's performance and allowed it to demonstrate forward-thinking and obtain long-term objectives.

"*One of the first things I helped in changing here is the way they did the Rota. I was really nervous about it because they used to do it so long and the guys working here week to week and they will not find out what they will do the next week until the Thursday before and that really had a bad impact on them. So, we spent a lot of time in getting a new system that will help us to plan ahead of time and that seems to have a positive impact on them*". (Project Manager, OM10)

Driving change was not a challenge-free task; hence it required challenging the status quo and the traditional ways of doing things. For instance, some managers during the interviews stated that they had encountered resistance and negativity from other organisational members. These members were not ready to step back from their existing knowledge and challenge current traditions and beliefs. To overcome resistance, explorative managers sought to make small changes over time. Prior research suggests that focusing on making small improvements to existing products and operations is vital for prosperity (i.e., O'Reilly and Tushman, 2013; O'Reilly and Tushman, 2004). The data presented below reveals how the profound impact of an initiative a Project Manager (OM13) made managed to stop the criticism and pessimistic voices.

"With us creative and innovative output that changes the dynamic in the business from pushing stuff that were not that interesting to them when we created an output that is of interest to them, they started pulling information from us. Thinking quite differently can create a massive difference when you work in a traditional organisation like this. The change is very slow here, but we are working on it. I have this guy in my team who has this expression, and he says it all the time he says how to eat an elephant and the answer is one slice at a time. We are doing small well-delivered pieces of work and have started building a track record of doing that aims at bigger change. I think it's a fascinating and frustrating business to work in. Small wins over time affect the whole organisation in a positive way…. I remember in many occasions they used to tell me what value are you bringing to this business and are you going to tell us what we already know, although there are a lot of negativity in that, it's funny because always criticism all the time but once we started driving improvements based on data that has a great impact the pessimistic voices stopped really quickly and in one of our project we managed to deliver a 13 per cent less in the quality reduction based on improvement actions which equates to six figures of saving but in this culture you don't find people celebrating that and instead, they will always ask you what have you done for me"

Although in some instances problems were not new (repetitive), some managers sought to depart from the traditional ways of solving them by inclining towards experimentation and discovery. This finding is consistent with the essence of individual ambidexterity which suggests that individual employees know better than others what their task environment requires (i.e., Mom et al., 2009). A Customer Service Manager (OM6) commented:

"*When problems arise within the working environment, they tend to not be new in nature, so an established approach is usually how it is resolved. In some specific instances, I prefer searching for new possibilities only because I know what possible solutions would best solve the problem*".

Explorative managers are inspirational leaders. They did not only demonstrate exploratory behaviour, but they also encouraged other organisational members to adopt this behaviour. They also know that responding fast to the change in the environment is considered a dynamic capability that increases the competitiveness and agility of the organisation. A Project Manager noted how he reinforced change by encouraging and challenging subordinates and other organisational members to experiment and to come up with new solutions.

"*I continuously encourage change. For instance, if my employees find a better idea or solution, we implement it straight away. We do not have to wait. I always challenge my employees to come up with new solutions"*. (Project Manager, OM10)

This finding is consistent with prior research which suggests that inspirational managers are non-authoritarian and facilitate creativity (Fletcher and Watson, 2007) and stimulate enthusiasm and experimentation among their followers (Yukl, 2013).

The data also suggests that senior and strategic managers' approaches to solving problems are highly contingent on the type of the problems. During the interviews, senior and strategic managers clearly expressed that they tend to prioritise exploration that aimed at developing new competencies over exploration that contributed to current competencies (i.e., along the supply chain), and that is due to the nature of their jobs that is much associated with strategy formulation and addressing change in the environment. For instance, a Chief Transformation Officer (S6) noted:

"*My approach to problem-solving depends on the problem. My role focuses principally on technology and business transformation. If technology, then many of the problems that arise are familiar given the operational nature of existing systems. However, if it is around business change then my approach may well be highly creative and strategic*"

The above finding is considered an extension to the current body of literature on individual ambidexterity which seems to neglect the impact of a manager's level in the corporate hierarchy on the type of exploration pursued (within current scope of operation vs. beyond current scope of operations).

In some cases, seeking change was underpinned by experience and knowledge gained from previous jobs. A Project Manager (OM13) who was newly appointed at the time of the interview was one of those who managed to drive innovation in the new organisation. The experience he had obtained from his previous job triggered him to challenge the status quo and subsequently initiate change in the department.

"I make decisions and only make what I think is right. I have enough experience and I have done this type of work in my previous job, and I know what things that do work and things that don't work and am using that for the last few months to shape new process and to get the team point at the right directions and to start creating a condition to drive success and I have been driving for all of that with the input of my team"

Prior research on individual learning and ambidexterity suggests that "experience is often a poor teacher" (Levinthal and March, 1993, pp.96), performing the same task for a long time decreases creativity (March, 1991), experience associated with position tenure is negatively related to individual ambidexterity (Mom et al., 2009). This study argues that although performing a task for a long period of time drives inertia and myopic thinking, transferring that experience and knowledge from a well-informed organisation to an ill-informed organisation through change agents (explorative employees) boosts innovation and change in the recipient organisation. Although there were a few attempts aimed at examining the relationship between knowledge transfer and ambidexterity, they were either limited to examining knowledge transfer across levels within an organisation (i.e., Mom et al., 2007) or across organisations (macro-level analysis). Literature that links inter-organisational learning and capacity with innovation, competitive advantage and organisational performance is an example of the latter. The focus of this literature is, to a great extent, limited to examining the role alliances play in transferring knowledge and experience between organisations and how that impacts their innovation and performance (i.e.,

Lavie and Rosenkopf, 2006; Lane and Lubatkin, 1998). What is distinctive about the data presented above is that it links the prior experience of individuals to the realisation of change and adaptability. The findings of this research confirm prior research which suggests that hiring helps organisations evolve their knowledge as they age by disrupting routine, introducing distant knowledge, and facilitating socialization (i.e., Jain, 2016).

Further, the findings of this research confirm the assumption of Helfat and Peteraf (2015) on dynamic managerial capability which suggests that the negative impact of prior experience and beliefs can be mitigated by context-specific knowledge and experience in pattern recognition. In other words, prior experiences in some contexts shape new perceptions, which then become part of the experience base for subsequent perceptual activity. Furthermore, the findings of the data align with the assertion of Helfat and Martin (2015) who suggest that dynamic managerial capability is underpinned by prior experience and that managers can draw on their expertise to sense opportunities and threats, seize opportunities and reconfigure organisational resources and structures. Our finding opens a new door for research that aims at linking prior individual experience with inter-organisational learning (i.e., absorptive capacity) and ambidexterity.

4.2.2 Forward Thinking/Proactiveness

Scholars suggest that explorative managers tend to keep an eye on the long term (i.e., Mom et al., 2009; Gibson and Birkinshaw, 2004; O'Reilly III and Tushman, 2008; Zhang et al., 2018; Good and Michel, 2013). Consistent with this suggestion, the data reveals that explorative managers tended to demonstrate the ability to think forward and keep an eye on the long run. Explorative managers were aware that non-routine exploratory activities were imperatives to long-term survival. As an example, an Operations Manager (OM15) noted:

"*I am so passionate about change. We have to adapt and change to give the customers the best we can. I am afraid if we fail to change, they might go somewhere else. The competition in this industry is so fierce and am sure they will go somewhere else if they are not satisfied*"

Forward-thinking and proactiveness were behaviours demonstrated by exploratory managers as means to accomplish long-term business objectives. The data reveals that managers with a forward-thinking attribute tended to incline towards offering products and services perceived as

different or unique by their customers regardless of the cost (differentiation strategy). These two behaviours acted as means to develop a better value proposition to make the organisation's offerings more attractive to customers. The two quotations presented below support this suggestion.

"I was thinking that from a reputational point of view, this is a long-term investment. The money you are going to spend versus the kickback you are going to get from not delivering something of value will be significant, you might get people in the future who might come to this event again they would not buy the VIP ticket again because they were not satisfied with the service we offered previously." (Events and Venues Manager, OM19)

"*In this job, I proposed few things recently that have cost a little bit more money but if you give them sound base and sound reason of why you are doing it, they listen to it and they take it forward to the board of directors meeting, I know this may take time but they talk very practically and very diligently about the practicality of the initiative and about things that needs to be done and for what reason. If there are things that can happen and add value to the business even if they don't make any financial return but make this place better than other places and more attractive to clients, they usually look at that and consider it*" (Project Manager, OM10)

Managers stated that the volatile environment they operated in resulted in the emergence of new problems and demands that were new to them. As a result, managers were obligated to think outside of the box and demonstrate fresh thinking routinely to address the change in customers' demands and needs. As an example, an Associate Partner and Director (S5) noted:

"I think out of the box every day. It is a business consultancy and there are no clear instructions. Clients' needs are never similar and the challenges they face are not identical so thinking outside the box is key at the project level. I don't recall I regret as thinking outside the box is why as a company we were hired by our clients. If they need ready solution, either they do themselves or have other less cost company to do"

Scholars such as Sinha (2015) and Raisch et al.(2009) argue that focusing solely on one type of activity (exploration or exploitation) might be detrimental in the long run. Explorative managers were aware of the critical role current operations play in financing long-term goals, maintaining competitive advantage, and prosperity. Therefore, they sought to maintain a balance between

exploration related activities (i.e., proactiveness) and exploitation related activities (i.e., reactiveness) by managing a portfolio of diverse and conflicting activities, in other words, by being ambidextrous. In their pursuit to wear more than one hat at a time, exploratory managers strived to strike a balance between reactiveness that is associated with solving current customers' issues efficiently and effectively and proactiveness that is associated with innovation, exploration, and thinking differently and aims at shaping customers' preferences and addressing the change in the environment.

"*My typical day is dedicated to managing clients, driving new business (exploring potential business), and assisting the teams to solve their issues in delivering their work and at the end review the work products before it goes to our customers but in general, I would say 60% of my time is focused on managing the existing business rather than exploring new opportunities*" (Associate Partner and Director, S5)

"*Nowadays we are really innovative. The main aim here is to make customers delighted with what we are offering and to pursue that goal we have to strike a balance between reactiveness and proactiveness. The environment is so dynamic and therefore focusing on numbers and current operations is no longer enough*" (Operations Manager, OM15).

In summary, forward-thinking, proactiveness and driving change were exploratory behaviours demonstrated by explorative managers. These behaviours were sometimes a means to explore along the supply chain (i.e., serving current customers), and in other a means for searching for new offerings and competencies. Although some scholars perceive the first type of behaviour as exploitative because it occurs along the supply chain (exploration as a means for exploitation), it is perceived as explorative behaviour in this study because it aims at seeking novel and new approaches to solving supply chain problems which increase the competitiveness of the organisation. Generally, within everyday practices maintaining a high level of creativity and innovation as a means to increase efficiency and commitment to current competencies was a key priority for middle and operations managers, whereas maintaining a high level of creativity and innovation as a means for searching for new offerings was a key priority for strategic and top managers. Moreover, the data suggests that managers at the higher level of the corporate hierarchy were more explorative than managers at the lower level of the corporate hierarchy. Lastly, it must

be noted that the exploratory behaviour of managers was shaped by their organisational context, and this includes autonomy to act and tolerance for early failure. How organisational context influenced managers' tendency to incline towards exploration is discussed in section (4.5). The overview of the data structure for exploratory behaviour is presented in table (8) below.

Exemplar Quotes	**Theoretical Categories**	**Aggregate Theoretical Dimension**
*"I involved in future planning, partnership management and contracting work. These types of tasks are different, and I have to handle them entirely…" (*Strategy and Innovation Manager, S1) "*In this job, I proposed few things recently that have cost a little bit more money but if you give them sound base and sound reason of why you are doing it, they listen to it and they take it forward to the board of directors meeting, I know this may take time but they talk very practically and very diligently about the practicality of the initiative and about things that needs to be done and for what reason. If there is things that can happen and add value to the business even if they don't make any financial return but make this place better than other places and more attractive to clients, they usually look at that and consider it"* (Project Manager, OM10)	Forward Thinking/ Proactiveness	Exploration
"*In this department, they do not have any kind of vision and they lack structure, and it does not have the specialist skills that it needs, they go about their jobs in day-to-day basis, coming in dealing with the event and then going home. My remit with the director is to put a long-term plan and goal to convert into a technical department and put structure to permit changes to occur in the long term as well as positive short-term effects*". (Events and Venues Manager, OM19) "*I am a change agent I frequently think out of the box which is important to the roles that I*	Driving Change	

have undertaken. I typically start from what is the problem we are trying to solve for and then what is the best way to resolve the problem both short and long term. I have created and built fully online banking capabilities to aggregate a customer's financial holdings – as the cheapest and best way to market in Asia for one bank" (Chief Transformation Officer, S6) "*Yes, in fact this is expected from me. I would not do well in this role if `I did not bring these aspects. I am employed to learn and develop in this role and at the same time to bring fresh thinking*". (Internal Consultant on General Management Leadership Development Program, S3) "*My daily tasks are more of exploration-driven oriented. I do operational work, but they are very much aligned to the strategic direction of my part of the organisation. My role is to focus on the medium-term outlook and to ensure that we have the strategy and the proposition to support that so it's a very much forward-thinking and directional role. I do enjoy my role because it allows and enables me to think differently and it's challenging. It's an industry that is quite hard to have a fixed agenda and that adds to the enjoyment because you know that you have to challenge the traditional way of thinking. I would say that 5 per cent of my work is dedicated to operational activities, for example, I contribute to make the annual report etc. and 95 per cent to explorative activities*" (Propositions Manager, OM5)		

Table (8): Overview of Data Structure for Exploratory Behaviour.

4.3 Organisational Context and Managerial Behaviour

Prior research suggests that employees do not operate in a vacuum, and therefore organisational context plays a crucial role in shaping their ambidextrous behaviour (i.e., Kauppila and Tempelaar, 2016; Vallina et al., 2019; Gibson and Birkinshaw, 2004; Birkinshaw and Gibson, 2004; Zhang et al., 2018). This study adopts and extends Gibson and Birkinshaw's (2004) framework which

suggests that a business unit becomes ambidextrous if four attributes in the context become available. These attributes are discipline, stretch, support, and trust. This study took the investigation further to a lower level of analysis (individual level) and examined how organisational context that comprises discipline, stretch, support, and trust influence and shape managers' exploratory and exploitative behaviour. To succeed in this pursuit, the researcher conducted cross-case and cross-level analyses. To code data and examine the impact of the four elements of organisational context on managerial behaviour, the three stages discussed earlier in a preceding section (3.7.2) were employed with an emphasis on causation coding. The causation coding aimed at linking causes (organisation context) with outcomes (exploitative and exploratory behaviour). As discussed earlier in the methodology chapter, the four elements of organisational context (discipline, stretch, support, and trust) were perceived and employed by the researcher as pre-defined themes against which managers' behaviours were examined. Coding process for the pre-defined themes (discipline, stretch, support and trust) was not straightforward. These themes or elements were "interrelated and non-substitutable", and this justifies why Gibson and Birkinshaw (2004, pp.212) failed to identify four distinct constructs and decided to combine them into two (performance management and social support) instead. To solve this issue, the researcher had to immerse more into data, involve in few rounds of coding (pre-coding stage), and maintain keywords and definition consistency of the themes throughout the study, as well as focus on a limited number of contents for each theme/element (sub-element). To examine discipline, four attributes were adopted: the establishment of clear performance standards, the availability of feedback, the availability of incentives (exploitation-oriented incentives), and the consistency in the application of rewards and incentives. To examine stretch, only one attribute was adopted, that is, task evolvement. To examine support, two attributes were adopted: autonomy to act and training (both technical and non-technical training/exploration- oriented training). Lastly, to examine trust, one attribute was adopted, that is, tolerance for early failure.

What follows is an overview that captures some exemplar quotes associated with the impact of organisational context (discipline, stretch, support and trust) on managers' capacity to incline towards exploitation and exploration along with the findings.

4.4 Organisational Context and Exploitative Behaviour of Managers

The data shows that discipline and stretch were the two organisational context attributes that shaped managers' exploitative behaviour (implementation, reactiveness, and refinement). What follows is an overview that captures some exemplar quotes illustrating how the two organisational context attributes shape the exploitative behaviour of managers.

4.4.1 Discipline

This study adopts Ghoshal and Bartlett (1994) and Birkinshaw and Gibson (2004) who referred to discipline as organisational and cultural standards that induce employees to meet all expectations generated by their implicit or explicit commitment to the business. In his pursuit to examine discipline in organisations, the researcher adopted four attributes that contribute to discipline. These attributes were deducted from the two seminal research papers mentioned above. The four attributes are the establishment of clear performance standards, the availability of feedback, the availability of incentives, and the consistency in the application of rewards and incentives. According to Birkinshaw and Gibson (2004) and Gibson and Birkinshaw (2004), these attributes contribute to and shape the exploitative behaviour of individuals.

The data and the findings of this research confirm the assumption of the prior research mentioned above regarding the key impact discipline plays in shaping the exploitative behaviour of managers (i.e., alignment and refinement), but what is distinctive about the findings of this research is that three out of four attributes of discipline were only found sufficient to shape managers' exploitative behaviour. These attributes are clear performance standards, the availability of feedback, and the availability of incentives (exploitation-oriented incentives). Although Gibson and Birkinshaw (2004) suggest that the consistency in the application of rewards and incentives contributes to discipline, the data revealed that the non-existence of this attribute did not adversely impact managers' tendency to meet their implicit or explicit commitment to the business. In other words, in the context where clear performance standards, open and candid feedback, and exploitation-oriented incentives exist, but consistency in the application of incentives did not exist, managers were still induced to meet all expectations generated by their implicit or explicit commitment to the business. The data and the findings associated with the four elements of discipline and the role they played (if any) in shaping managers' exploitative behaviour are presented next.

Clear Performance Standards

Setting standards for performance is an element of discipline that helps employees know what is expected from them (Ghoshal and Bartlett, 1994; Birkinshaw and Gibson, 2004). The data shows that the performance standards that prevailed in the majority of the examined contexts were clear, fixed and aimed at shaping the exploitative behaviour of managers and directing their efforts towards achieving specific results associated with current competencies and short-term goals (i.e., productivity and efficiency). The researcher was able to identify this relationship through the stories managers shared during the interviews. Managers noted that their management had always ensured to communicate their expectations and goals to them. To communicate goals and ensure commitment to current competencies and operations, managements tended to run regular meetings with staff. As an example, an Operations Manager (OM15) and a Deputy Director (S7) noted respectively that:

"*Everyone here knows what is expected from him, the management makes sure to communicate expectations in every meeting they hold. To me, as to everyone here I guess standards are very clear and attainable*"

"*There is a clearly defined performance framework in place for all individuals. The standards and objectives of my team are based on the objectives and standards for the department. They aim to tell us what actions and accomplishments are expected from us*"

To assess and ensure managers' commitment to achieving goals and tasks assigned to them, a performance evaluation system was put in place. The system aimed at monitoring managers' performance by periodically appraising their performance against the performance standards adopted in the organisation. The data also shows that this performance evaluation system aimed at directing managers' efforts to contribute to current competencies; hence it linked individual performance with measurable outcomes and quantitative goals. A Senior Project Manager (S8) commented on this:

"*Performance used to be evaluated very mechanistically. I mean they used a long list of tick boxes and lots of different criteria. But three to four years ago they put that aside and have started using a more flexible one, simpler and shorter focusing on what is your objective and how you feel you*

are doing against them and how your customers and managers feel you are doing. And the important bit is what development support you need to become more productive in your role……"

To increase managers' alignment to current competencies and operations, some organisations sought to run their performance evaluations more than once a year. Moreover, they also tended to link the evaluation of individual performance to the overall performance of the business unit. As an example, a Branch Operations Manager/a Customer Service Manager (OM8) noted:

"*Individual performance is evaluated using balance scorecard. The standards are clear despite them being interlinked to the performance of the branch. So rarely would you find an individual performing well in a branch that is not performing well……. I agree that continuous evaluation of performance encourages hard work. It has been on a continuous basis like every other month and not half-yearly, or else it serves as a micromanaging approach that doesn't encourage hard-working*"

The above quotation suggests that linking the evaluation of managerial performance to the branch's overall performance aimed at reinforcing the collective identity in the branch, which in turn resulted in inducing managers to incline towards achieving the branch's current quantitative and measurable goals. This is consistent with the suggestion of the former CEO of IBM which states that senior teams need to be rewarded on the organisational performance and not on their business unit performance if the firm aims at maintaining long-term performance. This is because when senior managers are rewarded for their business unit performance, there will be a tendency between them to focus on short-term goals (Harreld *et al.*, 2007).

Availability of Feedback

Feedback was another element of discipline that shaped the exploitative behaviour of managers. Based on the outcome of their performance evaluation, managers were provided with feedback. The data shows that the feedback varied from detailed, open, and candid to just a tick the box kind of feedback. The next two quotations support this suggestion:

"The feedback process was taken as a 'tick the box' approach". (Customer Service Manager, OM9)

"The feedback was very detailed and structured" (Propositions Manager, OM5)

Regardless of its type, the data shows that the feedback aimed at directing managers towards increasing alignment to current competencies and correcting any deviation from current standards and approaches. The next quotation supports this suggestion.

"*Performance evaluation is very structured. We are project-based so the direct supervisors change based on projects; accordingly, each employee has a counsellor who is responsible to monitor performance and progress considering the employee level. The counsellors for the same grade of employees meet quarterly and they evaluate all the people in the grade against predefined expectations per grade and based on written (through system) feedback from the direct supervisors also based on predefined areas. The process is moderated by HR*". (Associate Partner and Director, S6)

Linking feedback to predefined expectations encouraged managers to align their behaviour to these expectations and increased the tendency to focus on the short run and current operations (i.e., productivity and efficiency) and also minimised the likelihood to challenge the underpinnings behind these expectations.

A Chief Transformation Manager (S6) emphasised the above suggestion and noted:

"*Unless the feedback is based on actual events against key performance measures it cannot be relied on. This rarely happens and as such the conversation becomes a financial one and not a performance one*"

The data shows that the managements encouraged managers to use their appraisal feedback to improve their performance. Correspondingly, managers perceived the feedback as an opportunity to learn, improve, and enhance their performance. The three quotations presented next confirm this suggestion:

"*The management here encourages employees across levels to take feedback seriously and I personally do that simply because I want to learn and improve and ultimately to be the best that I can be. This is a strong driver for me personally*". (Internal Consultant on General Management Leadership Development Program, S3)

"*I do always take the feedback I receive into consideration, and I think anyone who doesn't is foolish. …. I think the positive thing is that is you get the opportunity to learn how others think and what would have done if they were in your position*". (Propositions Manager, OM5)

"*Feedback is always of high quality and always on time…. Yes, I have to take the feedback into consideration and in a constructive way to improve my skills and performance*." (Business Development Manager, OM18)

Availability of Incentives

To induce managers to dedicate their efforts to achieve objectives associated with current operations and competencies, managements established an incentive system that linked the evaluation of individual performance and compensations to key performance indicators (KPIs) and measurable outcomes. The data also shows that the exploitation-oriented incentives plan was the only incentive plan that prevailed in the majority of the organisations. Within this context, the conceptualisation of incentives was goal-oriented and driven by the need to defend current competencies; hence it was associated with quantitative measures and terms like sales, productivity, and efficiency. An Events and Venues Manager (OM19) commented on this:

"*Yes, we do get rewarded if we manage to increase sales for instance. It might take a few months, but the reward will be received by the end of the year as a max*".

Linking incentives with predefined goals and objectives was very much driven by the need to increase efficiency and productivity. A Senior Manager noted:

"*Rewards are based on performance, so salary increases, and bonus is linked with the individual performance and the business as a whole. This will push employees to complete their tasks in a more efficient way*" (Associate Partner and Director, S5)

The lack of exploration-oriented incentives was perceived by some managers as an indication that their creativity and forward-thinking had no value, which increased their inclination towards exploitation activities (i.e., implementation and refinement). The two quotations presented below confirm this suggestion.

"*Rewards were distributed at the end of the year, monetary and recognition. In my bank, I felt this didn't encourage creativity, experimentation and thinking outside of the box, but encouraged replicating of work. But then again, the incentives were not of large amounts to truly ignite creative thinking*" (Customer Service Manager/Branch Manager, OM8)

"*In [the name of the organisation], managing employees' performance aims at identifying gaps in performance to best meet the end goal. We would talk about how best to meet that goal usually not following the standard approach. Some creative thinking outside the box may be involved but it's not encouraged and therefore we end up following current standards and goals*". (Customer Service Manager, OM6)

Within this context, the conceptualisation of innovation and proactiveness was narrowly defined and was a means to increase productivity and efficiency. The next two quotations confirm that suggestion.

"Rewards program always motivate the team to be proactive and look forward to be part of the winning team…..We do have a monthly competition to provide the best idea outside the box we always try the idea that may not impact the spend however increases productivity" (Business Development Manager, OM18)

"*I think we get rewarded if do raise the bar and do some experimenting work that would eventually lead to improve operations and increase efficiency, but it takes time to happen and it doesn't happen straight away, and it may take few months and that is due to bureaucracy here but you will eventually get rewarded*" (Propositions Manager, OM5)

A Chief Transformation Officer (S6) justified why setting a performance evaluation system that rewards innovative thinking is considered challenging, she noted:

"*I do not think that the majority of organisations are mature and balanced in their performance evaluation approach. It is possible to set objectives for creativity and indeed measures to assess whether a person was creative, but I would separate performance and performance objectives and assessment since the latter can often be highly flawed for many reasons*".

To summarise, the data shows that the performance evaluation system in the majority of the organisations was tailored to encourage managers towards maintaining the status quo and

exploiting current competencies. This resulted in focusing on productivity and quantitative figures rather than challenging current practices and searching for new offerings and competencies. In other words, in shaping their exploitative behaviour, managers drew upon the performance management system adopted in their organisations.

Consistency in the Application of Rewards and Incentives

Although clear performance standards were evident across contexts, how these standards linked to incentives was not. Contrary to Gibson and Birkinshaw's (2004) suggestion, the data shows that consistency in the application of rewards was not consistently associated with the exploitative behaviour of managers. Although most managers were incentivised towards exploitation activities only (i.e., implementation), some managers noted that their exploitation-oriented initiatives were not at all rewarded. For instance, even though the initiative made by the manager quoted below bore fruit and led the demand for the current product to increase, he did not receive any reward from the management. According to him, they were too busy focusing on exploiting current competencies and operations, and thus they did not have time to think about rewards.

"*I would not say rewarded; it was noted. In my previous job, the system of recognition and rewards was a lot less. Very busy environment. The challenges were great to try, huge concerts but they did not have time for rewarding…*" (Events and Venues Manager, OM20)

Lack of fairness in the application of rewards was another issue associated with the lack of consistency in the application of rewards that was evident in the data. This assumption was mirrored in the next two quotations.

"*The standards against which performance is measured is totally a mess. Some people get a letter thanking them for their performance and they say to them here is a pay increase, other people get a letter only". (*Strategy and Innovation Manager, S2)

"Not at all. The bank is not operated on a 'fairness' approach, so despite my branch performing the best for 4 years straight, we were not rewarded on all 4 years….. Management would only hold accountability when it was a negative performance and not positive". (Customer Service Manager, OM9)

Apart from the inconsistency in applying rewards and incentives that was evident in the data, prior research argues that holding employees accountable for their performance may impede exploration; hence it discourages employees from discovering what is yet to be known (i.e., Chen, 2017, March, 1991).

During the interviews, some managers referred the lack of consistency of rewards to the political environment prevailed in their settings. Accordingly, the data reveals that romanticising leaders was one of the criteria that affected how the managers were evaluated. For instance, an Operations Manager (OM15) noted:

"The employees are not fairly evaluated. If I were a manager here, I would evaluate employees based on their achievements of the objectives assigned to them not on their attitude. They do not like me because I keep challenging current practices and keep telling them we have to do things differently and because of that they tend to devalue me and my opinions. And again, this is a very personal behaviour and because the company does not have an effective system to evaluate employees, they give the privilege for managers to do that, and those managers tend to use their own made criteria that is highly based on their relationship with the employee".

A Chief Transformation Officer (S6) confirmed the above suggestion and explained the reason behind the variation in compensations in some contexts, she stated:

"*I believe that throughout my career I was well compensated but in reality, in many large corporates the lack of an objective performance process combined with unconscious bias and political behaviour can prohibit fair compensations*".

Linking political environment to the realisation of ambidexterity is considered an extension to the literature of individual ambidexterity and requires further investigation by future research.

The data shows that although the lack of consistency of rewards in the organisations is considered a deficiency that might have adversely impacted trust in the organisational environment, it did not affect managers' commitment to completing their daily tasks associated with current operations and competencies. The two quotations presented below contribute to this suggestion:

*"I want to think I am pulling more than my weight." (*Technical Manager, OM2*)*

"*……I still do stay 18 hours a day for a couple of weeks sometimes when I have a project because am used to do and still ready to do when and where required. So yes, am pulling my weight*" (Event and Venues Manager, OM19)

In the majority of contexts, consistent application of rewards did not exist, yet managers were still found to incline towards exploitation activities such as implementation and refinement. Drawing on the data, the researcher identified two factors that overrode the adverse impact of the lack of consistency of incentives in some organisations on managers' commitment to completing their daily tasks associated with current operations. The first one was the performance management system which put pressure on managers to deliver and pull their extra weight. The second factor was the above-average compensation managers were receiving. The data shows that all the managers who operated in a context where lack of consistency of rewards and incentives was prevailing received a salary that was considered higher than what their counterparts in other organisations were receiving. The next two quotations contribute to this suggestion:

"*Compared to external employees in the industry or in other companies am very well compensated but compared to other employees of the same level, unfortunately, I am not fairly compensated. At the end of the day, we all work for money and am well rewarded and this is what makes me make a living here*." (Operations Manager, OM14)

"*I think I am quite well compensated. I am on a good wage, we don't waste time, I have that fear in me that I will not have this opportunity elsewhere*" (Project Manager, OM11)

Although Gibson and Birkinshaw (2004) and Birkinshaw and Gibson (2004) suggest that incentives motivate managers to do the best of their ability, the role compensation plays in overriding the adverse impact of the lack of consistency of incentives on managers' commitment to their daily task was neglected in their study and also in subsequent studies. Thus, this finding is considered an important contribution to the current body of literature on individual ambidexterity. Furthermore, the researcher argues that earning above-average compensation in the market may impede exploration and reduce the likelihood of double-loop learning; hence, it induces employees to romanticise their seniors and follow them, rather than challenging their beliefs and assumptions even in the case of disagreement. This is considered an important contribution to the ambidexterity

literature and requires further investigation by future research. The overview of the data structure for discipline that contributes to shaping managers' exploitative behaviour is presented in table (9) below.

Exemplar Quotes	Theoretical Categories	Aggregate Theoretical Dimension
"Everyone here knows what is expected from him, the management makes sure to communicate expectations in every meeting they hold. To me, as to everyone here I guess standards are very clear and attainable" (Operations Manager, OM15) *"There is a clearly defined performance framework in place for all individuals. The standards and objectives of my team are based on the objectives and standards for the department. They aim to tell us what actions and accomplishments are expected from us"* (Deputy Director, S7) *"Performance used to be evaluated very mechanistically. I mean they used a long list of tick boxes and lots of different criteria. But three to four years ago they put that aside and have started using a more flexible one, simpler and shorter focusing on what is your objective and how you feel you are doing against them and how your customers and managers feel you are doing. And the important bit is what development support you need to become more productive in your role……"* (Senior Project Manager, S8) *"Individual performance is evaluated using balance scorecard. The standards are clear despite them being interlinked to the performance of the branch. So rarely would you find an individual performing well in a branch that is not performing well……"* (Branch Operations Manager/Customer Service Manager, OM8)	Clear Performance Standards	Discipline

"The feedback process was taken as a 'tick the box' approach". (Customer Service Manager, OM9) *"The feedback was very detailed and structured"* (Propositions Manager, OM5) *"Feedback is always of high quality and always on time…. Yes, I have to take the feedback into consideration and in a constructive way to improve my skills and performance."* (Business Development Manager, OM18)	Availability of Feedback	
"Yes, we do get rewarded if we manage to increase sales for instance. It might take a few months, but the reward will be received by the end of the year as a max". (Events and Venues Manager, OM19) *"Rewards were distributed at the end of the year, monetary and recognition…."* (Customer Service Manager/Branch Manager, OM8)	Availability of Incentives	

Table (9): Overview of the data structure for discipline that contributes to shaping managers' exploitative behaviour

4.4.2 Stretch

Another recurring theme in the data that shaped the exploitative behaviour of managers and was adopted by management across cases is stretch. In their framework, Gibson and Birkinshaw (2004) suggest that the main aim of stretching is to induce organisational members to voluntarily strive for more rather than less ambitious goals. The data shows that stretching was a mandatory requirement and took part in the daily routine of managers. Thus, stretching was linked to the performance evaluation plans adopted by management and reflected in the performance assessments of the managers. In this context, the conceptualisation of stretching was narrowly defined and tailored to shape the exploitative behaviour of managers; hence they were associated with terms like productivity and efficiency. A Propositions Manager (OM5) noted:

"*I think we get rewarded if do raise the bar and do some experimenting work that would eventually lead to improve operations and increase efficiency."*

Additionally, an Associate Partner and Director (S5) noted:

"*It is a consultancy job and things are a bit different. We always stretch our people, and this is reflected in the evaluation process. To exceed expectations, the employee needs to deliver what is expected from him/her at a high level of quality and do the extra that is not expected from that level. So basically, this always push the people to think how they can differentiate themselves"*

The same manager quoted above was asked if this type of stretching would ignite creativity needed to address the change in the dynamic environment they operate in; she commented:

"*Yes. Because to exceed expectations, we expect from our people to perform tasks that are not expected from their level. To do so this will not only push them indirectly to look at the tasks of the people higher than them and thus explore additional roles, but also will push them how to complete their tasks in a more efficient way and this will require outside the box thinking".*

Managers within this context were encouraged to raise the bar and set higher ambitious goals as long as these goals contribute to current competencies and operations. Contrary to the notion of autonomy to raise the bar Gibson and Birkinshaw (2004) refer to in their study, autonomy to raise the bar within this context was narrowly defined and tailored to shape the exploitative behaviour of managers. A Project Manager (OM10) noted:

"*My tasks evolve over time and that is based on the issue and the project in hand…… The management allows me to set higher goals and I feel in control about that. I had a chat with my boss yesterday about it and brought my aspiration to have a pipeline of work, we got too much to do so we need to put a hand up to the business and say we need two more people three more people to deliver this comprehensive program of improvement so I think the senior people are more aware and they give the people license to deliver they give them autonomy, go and deliver, go and stretch yourself. We do build occasionally a kind of stretch objective. So, stretch objectives for me this year is to have too much work and bring more staff in. I suppose for the job I am doing now am over delivering*".

As discussed, although managers were encouraged to strive for more ambitious goals, these goals were related to their daily tasks, which indicates that the new learning occurred along the same trajectory and was driven by the need to defend current departmental and organisational goals. The quotation below suggests that stretching was part of managers' daily routine and served as a reacting mechanism to improving and refining current operations to respond to emerging problems.

"My tasks are always evolving. For sure there are some few fixed tasks that I have to do now and then and associated with making sure that every operational contract in water has an asset management maturity assessment in place and I plan for how they improve their maintenance organisation, their criticality analysis, and their condition assessment and as long as all these operational contracts have that plan in place, that is one of my must do's. I don't manage the budget and I don't monitor the budget, but I manage the asset management improvement functions. In terms of splitting, I would say that 40 per cent of my work is known from the beginning of the year and 60 per cent evolves as the year goes" (Field Service Manager, OM17).

To conclude, although stretching in some instances resulted in gaining new skills needed to resolve emerging issues and/or meet the needs of newly assigned tasks, it was perceived by the researcher as exploitation learning; hence it aimed at increasing implementation, refinement, and reactiveness. This finding is consistent with the assumption of prior research which suggests that exploration and exploitation are mutually enabling. That is, when individuals engage in exploration activities, they open a door for a new exploitation opportunity to emerge, and when they engage in exploitation activities, they increase their depth of knowledge that will eventually lead them to explore (see Kauppila and Tempelaar, 2016). The overview of the data structure for stretch that contributes to shaping of managers' exploitative behaviour is presented in table (10) below.

Exemplar Quotes	Theoretical Categories	Aggregate Theoretical Dimension
"We always stretch our people, and this is reflected in the evaluation process. To exceed expectations…." (Associate Partner and Director, S5)	Strech	Stretch

"*My tasks evolve over time and that is based on the issue and the project in hand….*" (Project Manager, OM10) *"My tasks are always evolving. For sure there are some few fixed tasks that I have to do now and then and associated with making sure that every operational contract…"* (Field Service Manager, OM17)		

Table (10): Overview of the data structure for stretch that contributes to shaping of managers' exploitative behaviour

4.4.3 Support: Technical Training

To overcome technical barriers and improve managers' skills and mastery of knowledge and information, technical training was put in place. Analysing the interview data reveals that technical training was the only training plan that prevailed in the majority of the contexts and is a recurring theme in the data that shaped the exploitative behaviour of managers (i.e., refinement and implementation), and therefore it can be argued that technical training is an element of support that contributes to discipline. Prior research highlights the importance of training as a key facilitator for equipping employees with new knowledge and skills (i.e., Tushman and O'Reilly III, 1996; Gibson and Birkinshaw, 2004).

The data shows that the technical training offered aimed at equipping employees with the skills and capabilities needed to excel at the task at hand and/or a newly assigned one. Various comments made by managers suggested that the training was very effective in addressing operational and daily tasks problems. Acquiring new skills, sharpening existing ones, and most importantly, avoiding errors were all reasons for introducing technical training to managers. As an example, an Information Technology Manager (OM4) and a Business Development Manager (OM18) respectively noted:

"*Task- oriented training is the only training available in the company, I do not know why but all I know that it's very effective for me, because of the tasks I am assigned to*".

"*We do have general training for all employees and specific training based on each individual skills requirement…. We are humans and mistakes are expected however we always make training*

for our team to improve the skills in case the mistake is repeated we can discuss with the individual the training requirements".

In some contexts, technical training was mandatory for all new joiners. The training in this context aimed at broadening the knowledge base of the new joiner so that they become aware of how their job contributes to the current departmental and organisational goals. It also aimed to deepen the knowledge base of new joiners to become more effective in aligning with current goals and objectives. As an example, a Technical Manager (OM1) emphasised the crucial role technical training played in meeting obligations and commitments.

"*The training is always a key requirement. When you first join this organization you have to go through in-depth technical training more from a general perspectives to understand the organisation and the industry and then you got through a several week program aiming to introduce you to different parts of the organisation, and that is quite a defined process for that initial training that you will be spending in different areas and departments that are somehow associated with the role assigned to you and then beyond that depending on what the role you end up doing there will be a specific training that helps you to deliver in that specific role assigned to you……. I think the technical training is good in terms of addressing the current issue [the name of the organisation] is facing in terms of getting people an appropriate level of technical confidence"*

Technical training was also a means for reacting to changes in the external environment. For instance, at the beginning of the COVID-19 era, many organisations launched a set of training that aimed at maintaining employees' wellbeing and also equipping them with the skills needed to sustain a high level of productivity. As an example, an Internal Consultant on a Senior Management Training Program (S3) noted:

"*We have an intranet site called [the name of the platform] which has training courses in all areas and at all levels.….and back to your question, and yes they are effective in addressing the challenges the organisation is facing. An example is that new training came out about COVID-19, working from home etc. very quickly after the crisis started*"

Focusing excessively on task-oriented training is a means to defend current operations and search for rapid profit. Prior research highlights that focusing excessively on exploiting current

competencies may be detrimental in the long run (i.e., March, 1991; Zhang et al., 2018; Good and Michel, 2013). The literature on path dependency and dynamic capabilities suggests that organisations become less effective in addressing the change in their environment if their actions and decisions are based on their past actions and investments (i.e., Fainshmidt et al., 2017, Teece, 2007). The quotation below illustrates how some organisations had fallen into the success trap and turned into a big money-making machine.

"*[The name if the organisation] has more than 15000 employees in the UK and I think 12000 of the jobs they occupied are task-oriented. [The name of the organisation] is a big money-making machine and that's why I can assure you that the majority of trainings available in [The name of the organisation] are task-oriented.*" (Continuous Improvement Manager, OM3)

Some organisations had gone further in their pursuit to serve current customers and broaden their customer base (exploitation-oriented goals). Analysing the interview data reveals that they sought to cultivate the conceptualisation of best behaviour in the mind of employees by associating it to terms like efficiency, productivity, and alignment, and reinforced that behaviour by linking it to rewards and incentives. Labeling in this context was a means to define, describe and classify certain behaviour in the mind of the employees in the hope to influence their behaviour and increase the likelihood to align to current practices and goals. Within this context, deviating from the best code of practice (i.e., alignment and efficiency), challenging current practices and doing things differently (individualism) were perceived by management as inappropriate behaviour, and therefore stigmatised. As an example, an Events and Venues Manager (OM20) suggested:

"*They have a very large HR department here. Relatively large in terms of the number of employees I would say and they call it "the people team". Their sole focus is on the people who work here such as welfare, appraisals and developing stuff. They have a very strong culture for appraisal which is based gain on the idea of being the best. The appraisal is called "being the best" and am just about to undergo my first one with my team and it's all scored against the job description, so it's a very definite set of goals in term of how these goals have been achieved and if those goals have not been achieved, there are system where measures can be taken to address that. Reward if they have been doing well, and if not, they will be put into a program that is called "back to best" where the employee will be given a timeline to improve in that particular element that he failed in previously*"

Based on the quotation above, the researcher suggests that labeling (i.e., back to best) in some organisations aimed at restricting employees' potential to step back from what was already known and seek solutions outside the scope of the existing realm, which in turn limits their tendency to go beyond the obvious and superficial causes of problems. Labeling theory emphasises the crucial role language, symbols, and communication play in shaping individuals' behaviour. Nevertheless, labeling theory solely focuses on the role of social labeling in the development of crime and deviance. It suggests that powerful individuals and governments increase the likelihood of deviant and criminal behaviour by labeling certain types of behaviour as inappropriate (see Bernburg, 2009). This study deviates from the notion of labeling theory in sociology and criminology literature and suggests that defining, describing, and classifying certain behaviour in the mind of employees and reinforcing that behaviour by linking it to performance appraisal and tools (i.e., incentives) might be in favour of powerful and path-dependent seniors. Additionally, prior research suggests that organisations should distinguish between breaking a known rule (rule-based error) which might produce positive outcomes, skills and knowledge, and error that results from a lack of ability and skills to execute a certain task (see Dahlin et al., 2018). The data shows that some organisations did not seem to acknowledge the difference between these two types of errors. Linking labeling theory to ambidexterity is considered an extension to the current body of literature on individual ambidexterity and requires further investigation by future research.

Although the data shows that the majority of managers acknowledged the importance of technical skills in equipping employees with the skills and knowledge needed to go about their daily tasks and challenges associated with short-term goals, they clearly expressed that it was not enough for long-term success. Managers from across the corporate hierarchy were aware of the importance of introducing training that ignites creativity and innovative thinking. The quotations below contributed to this suggestion.

"*Trainings were limited and mainly focused on sales. This was not effective in addressing the challenges the organisation faces as the sales staff were not interacting with customers at branch level - where the branch staff had no development trainings*" (Customer Service Manager, OM9)

"*The company offers general training such as health and safety and general management sort of thing. They also offer skills-based training, but I am not attending because I have attended them*

elsewhere. I think they should offer leadership training for senior managers, and I would take them if they were available" (Strategy and Innovation Manager, S1)

"*I have been giving the opportunity to do the work I am capable of here in this division and like when they put you through all training. However, I want the training to be more strategically oriented*". (Propositions Manager, OM5)

The overview of the data structure for support that contributes to shaping managers' exploitative behaviour is presented in table (11) below.

Exemplar Quotes	Theoretical Categories	Aggregate Theoretical Dimension
"Task- oriented training is the only training available in the company, I do not know why but all I know that it's very effective for me, because of the tasks I am assigned to" (Information Technology Manager, OM4) *"We do have general training for all employees and specific training based on each individual skills requirement…."* (Business Development Manager, OM18) *"The training is always a key requirement. When you first join this organization, you have to go through in-depth technical training more from a general perspectives to understand the organisation and the industry…."* (Technical Manager, OM1)	Technical Training	Support

Table (11): Overview of the data structure for support that contributes to shaping managers' exploitative behaviour

Summary and Conclusion

The data reveal that all the examined organisations had a performance management system that was tailored to shape the exploitative behaviour of managers and encouraged them to defend current competencies (i.e., productivity and quantitative outcomes). Regardless of the variation of rigidity in the applications of performance management between organisations, the data shows that none of the managers was operating in a country-club context in which no work gets done.

Introduction To the Next Section

Scholars argue that exploitation is vital for day-to-day operations but focusing solely on operational activities might be detrimental in the long run. According to them, to succeed in the short and long run, a balance between exploitation and exploration must be maintained, which cannot be achieved if exploration is neglected (Sinha, 2015; Gupta et al., 2006; March, 1991; Levinthal and March, 1993; Tripsas and Gavetti, 2000; Stiglitz *et al.*, 2016). To what extent did organisations follow this suggestion? The next section aims to answer this question by shedding light on the role organisational contexts played in shaping the exploratory behaviour of managers.

4.5 Organisational Context and Exploratory Behaviour of Managers

Elements associated with Gibson and Birkinshaw's framework (2004) and contributed to shaping the exploratory behaviour of managers will be examined and discussed in this section, and this includes autonomy to act (element of support) and tolerance for early failure (element of trust). The data shows that autonomy to act and tolerance for early failure were the two organisational context attributes that shaped managers' exploratory behaviour, such as forward-thinking, proactiveness, and encouraging and driving change.

Gibson and Birkinshaw (2004) and Birkinshaw and Gibson (2004, pp.213) argue that discipline and stretch are insufficient on their own to develop an effective organisational context in which ambidexterity takes place. They also argue that focusing excessively on these two 'hard elements' indicates that social support is either not put in place or neglected, and that creates a 'burnout' context in which employees will perform well for a short period of time only, but because of its "depersonalised, individualistic, and authority driven-nature" this context will eventually lead to high employees turnover, which makes ambidexterity difficult to achieve. Therefore, to avoid falling into a burnout context that results from too much emphasis on discipline and stretch, organisations should nurture an organisational context that encourages managers to use their own judgments as to how best divide their time between the conflicting demands of exploration and exploitation. To succeed in this pursuit, two more attributes must be enabled in the organisational context; these attributes are support and trust. To examine how support and trust shaped managers' tendency to incline towards exploration, the researcher focused on autonomy to act (element of support) and tolerance for early failure (element of trust).

4.5.1 Support: Autonomy to Act

Autonomy to act is an element of support and a recurring theme in the data that contributed to shaping the exploratory behaviour of managers, such as forward-thinking, proactiveness, and encouraging and driving change. Prior research suggests that autonomy to act is an element of social support that must exist in a context in order to obtain high-performance behaviour and individual ambidexterity (Simsek, 2009; Gibson and Birkinshaw, 2004; O'Reilly III and Tushman, 2013). Nevertheless, the data reveals that it was not sufficient on its own to drive exploratory behaviour of all the managers.

Autonomy to act is associated with decision-making authority. Decision making-authority is about the extent to which managers have control over reacting and responding to the need of the task environment within which they operate (Atuahene-Gima, 2003; Mom et al., 2009). The quotations below suggest that managers possessed the authority to make decisions.

"*Everyone is responsible to make decisions depending on their levels. We are not a centralized decision organisation. We delegate authorities and responsibilities…. I am a decision-maker in the business*". (Associate Partner and Director, S5)

"*I think the senior people are more aware and they give the people license to deliver they give them autonomy, go and deliver, go and stretch yourself*" (Project Manager, OM13)

The notion of individual ambidexterity is based on building a supportive environment that gives freedom to individuals to divide their time between exploitation and exploration activities, simply because they know what their task environment requires, which then expands to become a collective behaviour that in turn shapes business-unit capacity for contextual ambidexterity, which then leads to superior performance. Building on this suggestion, the researcher raised the following question: would the autonomy to make decisions (decision-making authority) suffice for exploratory behaviour to prevail across contexts and management levels?

The data reveals that despite their decision-making authority, some managers clearly expressed that they lack the freedom to make decisions (i.e., solving emerging issues the way they wanted), and as a result, they failed to demonstrate innovative and exploratory behaviour. The data also shows that despite the role autonomy to act plays in enabling swift decision making, it was not sufficient on its own to push all managers towards experimentation and innovation, and they thus

failed to achieve their potential fully. Within this context, autonomy to act was a means to solve well-structured and repetitive problems or to stretch to increase productivity and efficiency (exploitation-oriented activities). The majority of managers who operated in this context were reluctant to use their decision-making authority to initiate change even if they believed that it's vital for maintaining prosperity and competitiveness, and that was due to how failure was perceived in their context (error climate). For instance, a Project Manager (OM11) commented:

"*Management here keeps talking about innovation and creativity all the time but in reality, they are risk-averse. They encourage you to walk the extra mile and address the change but if you try and fail no one would be there to support you so why to take the risk and even try. I simply do what I am asked to do, nothing more or less*".

Although the manager quoted above claimed earlier during the interview that he had the autonomy to act, he perceived trying new things as a risk-taking behaviour that must be avoided, and that was due to error climate in his context. The data presented above also suggests that in some contexts trust was undermined by a lack of consistency between management's messages and actions, which in turn impacted adversely on managers' tendency to take the risk and incline towards exploration activities, primarily when operated in a context where failure was not tolerated. In other words, lacking messages consistency combined with intolerance for early failure left managers with no options but to increase their tendency to incline towards exploitation-related activities (i.e., alignment and refinement).

This finding confirms the suggestion of prior research which suggests that inconsistent messages from top management undermine trust and increase resistance and alienation of managers and eventually reduce the likelihood for ambidexterity to take place (i.e., Gibson and Birkinshaw, 2004). Such inconsistency between messages delivered from top management creates tension and discomfort and pushes employees to act defensively (Argyris, 1993) and creates a "strange loop" (Hofstadter, 1979). This finding is also consistent with prior research which suggests that individuals are more likely to explore and take initiatives when their management accept errors as a natural part of work (Dyck et al., 2005; Frese and Fay, 2001) and that tolerance for early failures is exactly what is needed for exploration to take place at the individual level (Chen,2017).

The impact of error climate did not only impact managers at the lower level of the hierarchy but also those operated at the top of the hierarchy, and that was reflected in the way they perceived the

anti-failure context they were operating in. For instance, referring to her previous job, a Chief Transformation Officer (S6) stated:

"In my role and specifically with respect to me, failure was not allowed. Once again organisational politics at play with different standards for different individuals… In my last company I described it as a place of fear"

The findings of this research suggests that the intolerance for early failure created a tension between exploration and exploitation activities and shaped managers' response to the need for change. How tolerance for early failure shaped the exploratory behaviour of managers is to be discussed in the next section. The overview of the data structure for support that contributes to shaping managers' exploratory behaviour is presented in table (12) below.

Exemplar Quotes	Theoretical Categories	Aggregate Theoretical Dimension
"Everyone is responsible to make decisions depending on their levels. We are not a centralized decision organisation. We delegate authorities and responsibilities…. I am a decision-maker in the business". (Associate Partner and Director, S5) *"I think the senior people are more aware and they give the people license to deliver they give them autonomy, go and deliver, go and stretch yourself"* (Project Manager, OM13)	Autonomy to Act	Support

Table (12): Overview of the data structure for support that contributes to shaping managers' exploratory behaviour.

4.5.2 Tolerance for Early Failure

Tolerance for early failure is an element of trust and a core element of organisational context that shaped the exploratory behaviour of managers, such as forward-thinking, proactiveness and leading and encouraging change. Because exploration and experimentation start out as early failure and disappointment (Chen,2017), it has been argued that trust emerges when individuals believe that well-intentioned failure in their organisations is perceived as a learning opportunity and not something to be punished for or ashamed of (Gibson and Birkinshaw, 2004, Dahlin *et al.*, 2018; Putz *et al.*, 2012). Prior research also suggests that in trusting working environments, employees feel safe, secure, and are not afraid to seek experimentation and challenge current traditions for the

organisation's benefit (i.e., Chen, 2017; Gibson and Birkinshaw, 2004). Although Gibson and Birkinshaw's (2004) study captured ambidexterity at the business-unit level only, they explicitly argue that tolerance for early failure is positively associated with individual exploratory behaviour.

Analysing the interviews data reveals that path dependency and the inability to step back from existing knowledge underpinned by the length of position tenure, especially at the level of incumbent seniors, were the main reasons for the intolerance for early failure to prevail in some contexts. As an example, a Strategy and Innovation Manager (S2) noted:

"There are a lot of people who have been here for a long time. It's such a routinized place, it really is. People are stuck in the way; they don't want to try something new. For example, if you come up with a new idea, which I had to do on many occasions, I expect to be a massive resistance, that's why I am really disappointed".

Prior research suggests that although individuals and organisations often improve their performance by repeating the same task, which may lead to the attainment of economies of scale and scope in a stable environment, "experience is often a poor teacher" when circumstances changes, because "learning from experience involves inferences from information" (Levinthal and March, 1993, pp.96), and therefore, performing the same task for a long time may decrease creativity (March, 1991). In the context of managerial ambidexterity, Mom et al. (2009) posit that position tenure in the current function negatively relates to managers' ambidexterity. Furthermore, prior research on dynamic managerial capability suggests that although experience contributes to the three underpinnings of dynamic managerial capability (managerial cognition, social capital, and human capital), it's often detrimental to strategic change, primarily if this experience is rooted in the original environment (see Finkelstein et al.,2009). Thus, the findings of this research are consistent with the suggestion of the prior research discussed above.

During the interviews, the researcher noticed that managers' reactions to the intolerance for early failure in their context varied, and that variation was associated with their position in the corporate hierarchy. As discussed in the methodology chapter, the qualitative approach is concerned with the depth rather than the width of data, which makes a small number of instances of value for the researcher. To capture the interplay between position of authority, organisational context, and exploratory behaviour of managers, in addition to the cross-case analysis approach adopted in this study, a cross-level analysis was sought. Based on this, the data revealed that in the contexts where

failure was stigmatised, senior and strategic managers, compared to middle and managers, were more able to demonstrate ambidextrous behaviour. In other words, the adverse impact of the lack of tolerance for early failure on managers' tendency to incline towards exploration was lower in the case of senior and strategic managers as compared to middle and operations managers. That said, it must be noted that senior and strategic managers who was operating within this context failed to achieve their full potential of exploratory behaviours.

Positioning this finding relative to existing ambidexterity literature reveals similarities. For instance, Mom et al. (2009) emphasise that managers' decision-making authority is positively related to their ambidexterity. Additionally, Birkinshaw and Gibson (2004) find that the lower the respondents are in the corporate hierarchy, the lower they rate the organisation's ambidextrous characteristics. They called this pattern the 'erosion effect'. That said, it must be noted that the two seminal studies mentioned above failed to explain how position of authority resolves the tension between exploration and exploitation in a context where managers have the authority to make decisions (autonomy to act), but failure is not tolerated (low tolerance for early context). Surprisingly, research on ambidexterity to date has failed to address this void.

The contexts in which managers operated can be classified into two: high tolerance for early failure context and low tolerance for early failure context. Classifying contexts into two helped the researcher to examine the impact of tolerance for early failure on managers' capacity to demonstrate ambidextrous behaviour and the variation in managers' reaction to the lack of tolerance for early failure. The next section aims to present findings associated with the impact of tolerance for early failure on managers' ambidextrous behaviour.

4.6 High Tolerance for Early Failure Context

The data revealed that managers in this context demonstrated high level of exploratory behaviour. The data also showed that managers drew upon failure tolerance in their organisations to enable and shape their exploratory behaviour, such as forward-thinking, proactiveness and leading and encouraging change. Organisations operating in this context were aware of the negative emotions and feelings that employees might develop due to failing in an exploratory pursuit or other related activities. Therefore, in their pursuit to encourage employees to take the risk and be proactive, rather than making them feel ashamed and threatened by the consequences of the failure they caused, they developed a cooperative environment that was based on trust and support. As an

example, an Associate Partner and Director (S5) noted:

"Transparency and accountability are the keys. When we do mistakes, the key ask is to all work together to fix it. Everyone will support and then when solved, we can discuss and hold people accountable based on their level and the mistake. It is key to have trust in your supervisor that he or she is here to support you and to have your back when you do mistakes. Otherwise, people will not take risk and think outside the box (as mistakes maybe encountered in a higher % when you try new solutions".

The above quotation suggests that management perceived failure as a learning opportunity and an integral part of exploratory learning, without which innovation and creativity cannot not be obtained. In this context, holding accountability for mistakes was not tailored to deter managers from trying new things, but to induce individual learning (defence mechanism vs. learning mechanism). Therefore, rather than linking accountability to terms like fear and failure, it was linked to terms like learning and development. This finding is consistent with the assumption of prior research which suggests that failure is an integral part of experimentation (Khanna et al., 2016) and that organisations need to enable discipline and stretch to encourage individuals to push for ambitious goals, but also need support and trust to ensure that this happens within a cooperative environment (Ghoshal and Bartlett, 1994; Gibson and Birkinshaw, 2004; Chen, 2017).

During one of the interviews, a Deputy Director (S7) highlighted the importance of adopting a "no blame culture" and open inquiries to encourage managers to step back and challenge their existing knowledge and the fundamental assumptions in their context, thereby creating entirely new assumptions and strategies for effective action, she noted:

"We run a ''no blame culture", and what we would always do we undertake a deep breath. I always say to the person see as long as you understand why you have done something and you always put the person that we work for as a forefront, you cannot go far wrong. Ok maybe something has happened with the processes. We don't know what has happened so we need to speak with the people involved and maybe something that happened, and we would do the learning so make sure that would never happen. It's a double-loop learning, and we would share that across the organisation because maybe there are processes and practices that need to be changed or maybe reviewed."

This finding confirms the assumption of prior research which suggests that learning culture in such context describes the learning climate with a high commitment to open inquiries, experimentation, shared vision, open mindfulness, and creativity (Ojha *et al.*, 2018). Learning organisation is a place "where people continually expand their capacity to create results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free and where people are continually learning how to learn together" (Senge, 1990, pp.3).

The atmosphere of trust and learning that prevailed in this context shaped how managers perceived failure and induced them to incline towards exploration and experimentation activities. Various comments made by managers suggested that their exploratory behaviour was shaped by the cooperative and failure-tolerant context they operated in. As an example, when a Senior Project Manager (S8) was asked how failure was perceived in the organisation, he noted:

"*In the old days it would have been looked at in a very negative way but nowadays they perceive it differently. Yes, we do fail because our aim is to push boundaries and we will not get a big success if we don't get these as lessons to learn from*".

The above quotation suggests that the management's view towards failure had changed. They became aware that failure and experimentation are indispensable for innovation (see Khanna et al., 2016). Thus, they started to view failure as a learning opportunity to seize rather than a deviation to suppress, which in turn affected how employees perceived it.

The data also reveals that managers picked on the high tolerance for early failure in their context to shape their forward-thinking and proactive behaviour. For instance, a Senior Project Manager (S8) added:

"*Increasingly I am trying to play the long term so increasingly am trying to prioritize things that might seem less important to other people but am confident that they will bring a bigger return and bigger change even if they do not give massive return in day one"*.

Similarly, a Project Manager (OM13) stated how his passion for creativity and thinking outside the box was shaped by how failure is perceived in his context.

"*My managers always encourage me to be creative and to think differently and therefore am never afraid of trying to change things here and if things did not work as planned or as expected I believe*

they will be here to support my back. We all believe that if you have never failed it means you have never tried".

Tolerance for early failure did not only induce middle and operation managers to explore along the same trajectory, or to view exploration as a continuous improvement to current processes and traditions, but also encouraged them to develop a higher level capability and question the organisation's strategic logic, which represents the organisation's operative rationale for achieving its goals (see Sanchez and Heene, 1997). As an example, a Propositions Manager (OM5) suggested:

"*My daily tasks are more of exploratory- driven oriented. I do operational work, but they are very much aligned to the strategic direction of my part of the organisation. My role is to focus on the medium-term outlook and to ensure that we have the strategy and the proposition to support that so it's a very much forward-thinking and directional role. I do enjoy my role because it allows and enables me to think differently and it's challenging. It's an industry that is quite hard to have a fixed agenda and that adds to the enjoyment because you know that you have to challenge the traditional way of thinking. I would say that 5 per cent of my work is dedicated to operational activities for example I contribute to make the annual report etc. and 95 per cent to explorative activities*".

Analysing the interviews data revealed that tolerance for early failure acted as an antidote to various barriers of exploration, including risk-averse, fixed-mindset, and results-oriented seniors. For instance, during an interview, a Project Manager (OM13) noted:

"We should be a process-driven organisation, the reality is not, it's driven by personalities, people and behaviour and this is really interesting. Right? When it comes to me managing issues and problems, I have a process that I should follow, and I always ask my team to follow the process however if we need to think about something differently am happy to break the process and take different approach. My old boss was very trusting and teamwork-oriented kind of guy and my new boss has a fixed- mindset so he is not so supportive of me taking a different approach and applying my own way, but this is never an issue for me because *I do follow the process if it fits with the issue of the task am working on and I don't like to be a process-centric…. My management is a little bit risk-averse, but I feel accountable for everything I do so if I take a gamble and it succeeds, they will give me a thumb up and if it fails, I do not think anything will happen".*

The above quotation suggests that despite the tension between exploration and exploitation that resulted from the political situation and the lack of trust prevailed in the context, the manager sought to challenge the status quo and depart from the traditional ways of doing things (i.e., break the rules) where needed, and that's due to the tolerance for early failure that prevailed in the context. Thus, it can be argued that the manager's passion for change was safeguarded by the high tolerance for early failure that prevailed in the organisation.

Operating in a highly dynamic environment where intense competition prevails necessitates the need to empower employees to act on time. The data revealed that tolerance for early failure enabled managers to make decisions on emerging issues without the need to grant approvals from their seniors (swift decision making), which allowed to promptly respond to these issues. Scholars argue that swift decision-making and speedy response are vital for maintaining competitiveness, especially in a highly dynamic environment where the rate of change continues to rise, and managers face dynamic decision-making scenarios (see Good and Michel, 2013). The following two quotations support this suggestion:

"*My boss is the Chief Mechanical Engineer and then above him there is a Chief Engineer. I have a direct supervisor to whom I report. Some jobs they come to me due to the nature of the role I am doing and I know when to get involved and when not to get involved and I might seek his advice and his views but not necessarily his approvals so it is a bit of balance between him telling me what we should do and give me support"* (Technical Manager, OM2)

"*Our top management gives us empowerment to allow us to take immediate action however we might need higher management approval in some cases but not all the time*" (Business Development Manager, OM18)

Despite the lack of exploration-oriented incentives, managers who operated in a context where failure was tolerated tended to demonstrate a high level of exploratory behaviour. The data revealed that tolerance for early failure overrode the adverse impact of the lack of exploration-oriented incentives and triggered the intrinsic motivation of managers to demonstrate exploratory behaviour, such as forward and innovative thinking, proactiveness, and leading and encouraging change. This finding is consistent with the assumption of prior research which emphasises the

positive relationship between intrinsic motivation and individual ambidexterity (i.e., Kao and Chen, 2016) and suggested that proactive personality and intrinsic motivation are the core individual characteristics for employees creativity (Woodman *et al.*, 1993; Kao and Chen, 2016), and that intrinsically motivated employees may seek to do well on their jobs even if their efforts are not rewarded (Vroom, 1964). This suggestion was supported by the two quotations below:

"I do not think we get rewarded for our experimenting work, but I do not think this restricts me from doing explorative work because my role am doing right requires explorative mindset" (Propositions Managers, OM5)

"*Administrative work is part of what I daily do but what gets me excited is understanding and scoping bits of work. For instance, I love getting data, I love data analysis, watching trends and creating models and the context matters for sure but this how my mind works .....I am an explorative and dynamic person*". (Account Manager, OM7).

Summary and Conclusion

Tolerance for early failure created an environment where employees were not afraid of making well-intentioned failures and thus performed to their full potential. Managers who operated within this context were encouraged to challenge their existing knowledge to cultivate new ones for the benefit of the organisation. Further, they had the potential and privilege to step back from what was already known and seek solutions outside the scope of the existing realm and beyond the obvious and superficial causes of problems (double-loop learning). To sum up, tolerance for early failure reinforced the intrinsic motivation and proactive personality of managers to explore, discover, and experiment. The overview of the data structure for trust that contributes to shaping managers' exploratory behaviour is presented in table (13) below. The following section aims to examine managers' attitudes towards exploratory behaviour in the low tolerance for early failure context.

Exemplar Quotes	Theoretical Categories	Aggregate Theoretical Dimension
"Transparency and accountability are the keys. When we do mistakes, the key ask is to all work together to fix it. Everyone will support and then when		

solved, we can discuss and hold people accountable based on their level and the mistake. It is key to have trust in your supervisor that he or she is here to support you and to have your back when you do mistakes. Otherwise, people will not take risk and think outside the box (as mistakes maybe encountered in a higher % when you try new solutions". (Associate Partner and Director, S5) *"We run a no blame culture"….:* (Deputy Director) *"In the old days it would have been looked at in a very negative way but nowadays they perceive it differently. Yes, we do fail because our aim is to push boundaries and we will not get a big success if we don't get these as lessons to learn from"* (Senior Project Manager, S8)	Tolerance for Early Failure	Trust

Table (13): Overview of the data structure for trust that contributes to shaping managers' exploratory behaviour.

4.7 Low tolerance for Early Failure Context

Contrary to how managers perceived failure in the failure-tolerant context, managers in the lack of tolerance for failure context were intimidated by the consequences of failure (if occurs). This fear was reinforced by the performance appraisal methods adopted in this context Within this context, managers' behaviour towards exploration activities varied starkly and the reason behind that variation is found to be associated with their position authority which gives managers the right over how to best solve problems and set goals associated with their task line (see Mom, 2009). The data also revealed that the exploration-related activities that were captured in this context were primarily demonstrated by senior and strategic managers.

How the tension between exploration and exploitation that resulted from the lack of tolerance for failure was reconciled by managers and the role position of authority played in mitigating this tension is to be discussed next.

4.7.1 Managing Tension of Exploration and Exploitation at Operations and Middle Management Level

In the lack of tolerance for early failure context and despite the existence of elements associated with supportive management, such as autonomy to act, combined with the lack of exploration-oriented incentives, the majority of operations and middle managers perceived exploration and exploitation as incompatible (two ends of a continuum), which resulted in perceiving exploration as a risk-taking activity, and consequently they inclined towards exploitation activities only (i.e., alignment and refinement).Within this context, maintaining a high level of alignment and commitment to current traditions was of a high priority and evident within everyday practices. Despite their decision-making authority, they failed to experiment beyond what was already known or seek new approaches to solve emerging issues, simply because they were intimidated and haunted by the fear from failure instilled and rooted in their context. Various comments made by managers support this suggestion. For instance, contrary to how holding responsibility was perceived by managers who operated in the high tolerance for early failure context, holding responsibility in this context was negatively perceived and caused psychological discomfort to managers. The next four quotations confirm this suggestion.

"*Management would only hold accountability when it was a negative performance and not positive… It was not a comfortable working atmosphere, very rigid and did not feel secured"* (Customer Service Manager, OM8)

"*I thought at the beginning that this place is an entrepreneur and flexible and pushing for a change, and I found out that it's really conservative, risk-averse and slow and they want to stay the same. The new ideas are simply not valued. Here, they don't know what does learning from experience mean and I know because my team has started to pick up some accountability there*" (Continuous Improvement Manager, OM3)

"*I used to hate going to work as my manager did not want any individualization brought to work – we were robots who left our human-side at the door*" (Project Manager, OM11)

"*Being honest, I never took the risk and go beyond my task line or even tried something new without permission. Am not that someone who made something and then beg for forgiveness after. There are always small things that we have done am sure, but I always stick to implications and*

always consider what my boss would tell me to do….The power structures along with error climate that exist in organizations inhibit change across organizations unless imposed or directed from the CEO" (Field Service Manager, OM17)

Within this context, organisations perceived exploration as a threat to their current competencies; thus, they discouraged individualism in the workplace. For instance, contrary to how taking initiatives was conceptualised in the high tolerance for early failure context, taking initiatives in this context was narrowly defined and was a means to increase alignment, implementation and maintaining the status quo. The manager quoted below clearly stated that although there was a small room for creativity in the banking industry, creativity wasn't allowed in the workplace.

"On the broader scope of the bank, the management did not enable giving a personal meaning to the way I do things. When dealing with tasks and problems we have to follow specific guidelines – the banking industry is heavily regulated both internally and externally and thus you have little room to experiment but was not allowed. The management encouraged us to take initiative but not to push boundaries and do not experiment. Management style was to not challenge current traditions but to follow the status quo hence why my typical day would be 100% dedicated to operational activities". (Customer Service Manager, OM8)

To inhibit the likelihood of individualism, operations and middle managers were provided with a detailed guidance for decision making. The quotation below supports this suggestion.

"Senior management and HR did not want any mistakes to be made and you were punished for mistakes. The ambitions of the company were so far removed from staff outside of the senior management, as they were never clearly communicated nor continuously encouraged. At the beginning of the year, you were sent an email on what they wanted, along with instructions and at the end of the year they asked if you achieved it……". (Service Improvement and Innovation Specialist, OM16)

The above quotations suggest that managers' endeavours to think proactively and innovatively were not valued, rather suppressed, which resulted in being fully dedicated to operational activities. Contrary to Mom et al.' (2009) findings which fail to capture a negative impact of formalisation of managers' tasks on individual ambidexterity, the finding of this study confirms that of prior research which suggests that formalisation of a manager's task increases managers'

feeling of alienation and isolation and creates a conflict between their task and a larger picture (i.e., Organ and Greene 1981), which in turn reduce managers' ability to act ambidextrously (i.e., Tushman and O'Reilly, 1996; Adler et al., 1999).

Innovation was not only narrowly defined in this context, but it was associated with chaos. This was evident in the quotations presented below.

"I believe that generally speaking, we spend our time listening to people saying we have to change and all what we do is change and we are very good at pretending we are progressing but actually it's just a change for changes and it is just chaos on the ground because this change does not actually help us. People keep saying let us change let us do something differently. I think we are pretty prescribed what they want us to do. I think we are allowed to challenge things here as long as you can justify it. However, I always challenge things that I find inapplicable or outdated" (Project Manager, OM11)

"*Innovation does not necessarily mean we have to invent the wheel. It is also about how we do things, how to improve our services while maintaining a low cost of operations*". (Operations Manager, OM14)

The data presented above suggests that managers had not only altered their conceptualisation of innovation, but they viewed change as a threat to avoid rather than an opportunity to seize. Their defence mechanism was a means to blend in with the surroundings, even in the case of disagreement. This is consistent with the findings of Karlsson et al. (2009) which suggest that individuals tend to shield themselves from data and information that cause psychological discomfort by burying their heads in the sand. This tendency is referred to as 'ostrich effect'. It also aligns with the suggestion of Mellahi and Wilkinson (2005) which posits that managers in confusing situations tend to behave rigidly by clinging to the traditional ways of doing things and increasing their use of cognitive simplification processes such as 'rule of thumb'. This tendency was verified by the Project Manager who associated change with chaos; he noted:

"*I do not make mistakes. Here, they hold everyone responsible. Unless the guys have a very good explanation for why they have failed to deliver the service that [the name of the organisation] was signed up to then they will be moved out very quickly (time: 30:30). A lot of politics and power*

involved in this and this is another reason why I don't want to put my head in this and yes there is a high level of expectation that you will deliver and if you don't deliver and something goes wrong then you will be in trouble" (Project Manager, OM14)

To reduce the tension between exploitation and exploration that resulted from the lack of tolerance for early failure that is rooted in this context, middle and operations managers transformed exploration into a more workable entity that served their daily routine (exploration as a means to increase alignment). This is consistent with the findings of prior research which suggest that the tension between exploration and exploitation at this managerial level is usually resolved by transforming exploration into a more workable entity consistent with the managers' daily routine and practices (i.e., Andriopoulos and Lewis, 2010). The two types of workable entities that were evident in the data are to be discussed below:

1- Exploring Within the Known Realm

Exploring within what was already known in the organisation was the approach adopted by operations and middle managers operated in the lack of tolerance for early failure context. Within this context, despite remits given by their management, stepping back from existing knowledge to explore new solutions beyond what was already known was not an option. For instance, a Continuous Improvement Manager (OM3) commented:

"*I am not designing anything myself so I would say I experiment within the existing known process and procedures. I may be shaping something which is tailored to help any given business unit that I go to, so I experiment for them but within the known realm*".

Similarly, although the Operations Manager quoted below perceived himself as explorative, his explorative attempts were limited to exploring the existing schema to understand the scope of the project at hand, and that was again due to the intolerance for early failure in the organisation.

"I am doing my best within my capabilities and that what makes a difference and make me confident. I am explorative in nature and if am assigned to a new project I usually spend few days trying to learn about stuff that are related to that project. I am naturally positive and willing to learn. For instance, the things am involving right now is boiler contracts and I had no understandings of how boiler works so the first thing I do is to spend a day or so trying to

understand learning about learning operational and trying to associate what I do what I can do in that realm" (Operations Manager, OM14).

2- Creativity as a Means to Increasing Alignment

As discussed, the lack of tolerance for early failure created a tension between exploration and exploitation and shaped the exploitative behaviour of the middle and operations managers. Within this context, creativity was perceived as a means to increase alignment to current departmental objectives.

"*In my team, I tried to provide an environment that encouraged individual meaning to work. For instance, the feedback process was taken as a 'tick the box' approach. However, at my branch I used it as a two-way communication tool – feedback on areas of improvement to my direct report and they would give me feedback as well. After an individual conversation, I would draw up a 'keep up and do better' sheet that would be analysed every month to see if the areas of improvement are being attempted or not*". (Customer Service Manager, OM8)

The data presented above suggests that although the manager quoted above sought to do things differently and shifted from the traditional way of giving feedback, i.e., 'keep up and do better' sheet, her approach to achieve this goal was a means to increase alignment to current practices, hence it was associated with terms like improvement.

Contrary to prior research which suggests that individuals tend to switch from exploitation to exploration when they are provoked by unsatisfactory results (Laureiro-Matrtinez *et al.*, 2015) and when the outcome falls below a threshold level (Aston-Jones and Cohen, 2005), the findings of this study suggest that this assumption holds true only in the high tolerance for early failure context where managers are not afraid of making well-intentioned failure. We cannot assume that the assumption of prior research holds true in a lack of tolerance for early failure context, specifically between middle and operations managers. That's because they failed to do the best work they were capable of (i.e., switching from exploitation to exploration where needed). Thus, the suggestion of the prior research mentioned above is inconclusive.

Summary and Conclusion

Decision-making authority coupled with the license to act were insufficient to push operations and middle managers towards exploration activities. This study suggests that, in the context of operations and middle managers, tolerance for early failure mediates the relationship between autonomy to act and exploratory behaviour. This finding extends Gibson and Birkinshaw's framework (2004) and other subsequent research (i.e., O'Reilly III and Tushman, 2008) which suggest that both latitude (autonomy to act) and security (error climate) are vital for enabling the exploratory behaviour of managers, but fail to examine the key role of security in enabling autonomy to act (security as an antecedent to autonomy to act).

To conclude, within the context of middle and operations, the lack of tolerance for early failure created a tension between exploration and exploitation activities (two ends of a continuum) which resulted in prioritising exploration over exploration (tradeoff). Therefore, it can be argued that the key to innovative behaviour to take place at the operations and middle management level is tolerance for early failure and any attempt to ignite creativity at this level will go awry if well-intentioned failure is not permitted.

4.7.2 Managing Tension of Exploration and Exploitation at Top Management Level/Strategic Planning Level

The impact of the lack of tolerance for early failure on senior and strategic managers' behaviour was different from that on operations and middle managers. Despite the lack of support (i.e., exploration-oriented incentives) and the lack of tolerance for early failure prevailed in this context, senior and strategic managers were still able to demonstrate exploratory behaviour. That said, it cannot be assumed that senior and strategic managers' position of authority and closeness to the highest decision-making authority in their organisations completely wiped out their fear of failure. This was mirrored in the quotations presented below.

"Many people see me as a risk-taker but in reality, I am a risk-averse. I tend to take a calculated risk for anything I do. I have seen many people around me who have taken risks failed". (Deputy Director)

"*In this organisation, if I do not perform then I am confident that I would be on my way out of the organisation. I have seen this happened to one of my cohorts although I do not know the*

circumstances other than he was underperforming" (Senior Project Manager)

The data shows that within this context and despite their exploratory initiatives they made, senior and strategic managers failed to achieve their full potential of exploratory behaviours. For instance, most of the explorative initiatives made by senior and strategic managers within this context aimed at serving existing customers, and only a few attempts for searching for new investment opportunities beyond the current scope of operations were captured in the data. Thus, it can be argued that senior and strategic managers' full potential of exploratory behaviour was not obtained. During the interviews, various comments made by senior and strategic managers expressed their resentment of how failure is perceived in their context.

"In regard to how failure is perceived, not all are equal. But I believe they do not have a temper for early failure. When you try to do something new it is quite tough and challenging and you might not achieve what you were planning to. In regard to improvisations, to be honest, I was so surprised, I thought that small [institutes] will be really flexible. Here, it's almost an anti-innovation environment" (Strategy and Innovation Manager, S1)

"*One thing I have learned that if you are in a team environment and you want to work through and with people, if you are autocratic and you don't trust them, and even if you don't let them make mistakes, you make a massive issue for yourself and for the team dynamic. Let's face it, we are all human and make mistakes, so we have to keep encouraging people to try new things and learn from failure*" (Strategy and Innovation Manager, S2)

"In my role and specifically with respect to me, failure was not allowed. Once again organisational politics at play with different standards for different individuals… In my last company I described it as a place of fear" (Chief Transformation Officer, S6)

The tension between senior and strategic managers' commitments to their roles and their internal organisational culture was mirrored when senior and strategic managers were asked if the current management gave them the opportunity and encouragement to do the best work they are capable of, and to what extent did the management help or hinder their capability to deal with evolving demand of the business. The data revealed a consensus among managers that their creativity was hampered by the practices adopted in their setting. One of the responses is presented below.

"Definitely not encouraged to do my best work and this became a challenge to drive the change required. For example, my typical day would have been mainly operational but also leadership of my team and the cross-company transformation. 50/50%. I would undertake some creative work in the year but in this organisation that would have been maybe 10% in year only" (Chief Transformation Officer, S6)

Prior research suggests that increasing a manager's decision-making authority increases his/her tendency to seek solutions to emerging problems both within and outside the framework of existing beliefs and strategies (i.e., Mom et al.,2009; Sheremata, 2000), and to rely more on his/her knowledge, skills and expertise rather than on existing rules or expertise of superiors (Hage and Aiken, 1967). Correspondingly, increasing decision- making authority increases a manager's sense of responsibility over how to solve problems and set goals (Atuahene-Gima, 2003). Therefore, it can be argued that the lack of tolerance for early failure rooted in this context created a tension between senior and strategic managers' commitments to their roles (as strategic planners and change agents) and their internal organisational culture. Prior research suggests that role identity plays a key role in determining the expectations and requirements from an individual holding a role, and it also influences how information is being assessed and the decision and behaviour an individual considers (see Brusoni and Rosenkranz, 2014).

Despite this anti-learning context, top and strategic managers made consistent attempts to challenge the status quo in their organisations and detect and seize opportunities. Their change agent role combined with their exposure to their external environment increased their sense of responsibility over how to best address the change in their environment. To succeed in this pursuit they had to seek solutions outside the scope of the existing realm, and beyond what was already known. Analysing the interviews data revealed that forward-thinking and keeping an eye on the long term were a priority for most senior and strategic managers. Contrary to middle and operations manager who were reluctant to challenge their seniors and the status quo in their organisations, even in the case of disagreement, senior and strategic managers could not turn a blind eye when things were not done appropriately. According to them, to be a true leader you have to act with integrity and refrain from romanticising leaders. Therefore, they sought to take risks and act when needed. The two quotations below support this suggestion.

"*I am trying to do things the right way. If you are in a leadership position, you have moral*

imperatives to make things right and if you do not speak up, it's as bad as saying something offensive. If they do not like what I do, I can go somewhere else. I do think of my manager's view and what makes him happy prior to making decisions, but also, I try to make a long-term view. I have no interest in sitting and making someone feeling good about themselves if that would cause a long-term negative impact on the place, so if I am speaking to my team and there is a difficult decision to be taken about something like for instance, we need to stop doing something we invested in then, I will tell them about it because in the long run they will appreciate that. Absolutely you have to consider the hierarchical and the chain of command in the organisation but if you act with integrity everything will be fine in the end" (Strategy and Innovation Manager, S2)

"I keep an eye on the long term and I always challenge how things are going on here and it is expected from me to behave this way. Here, they do not have the willingness to step back from their existing knowledge and see things from different angles. I do take other peoples 'opinions but I do what I feel right only…." (Strategy and Innovation Manager, S1)

Analysing the interview data also revealed that these managers did not take risks arbitrarily. Prior to their current role, they had obtained broad and various knowledge and experience in different fields, which in turn contributed to developing their cognitive capability to strike a balance between exploration and exploitation (focusing on both short-term and long-term goals), and also equipped them with the skills and knowledge needed to deal with ambiguous situations and cues associated with the dynamic environment they operated in. The two quotations below contribute to this suggestion.

"*My first degree is electrical and electronic engineering back in the early 1980s. I spent my first 22 years working in the telecom industry in a wide variety of roles. Two-thirds of the 22 years I was working at [the name of company] and they sent me on a postgraduate business management course. My second degree is a post-graduate diploma in business and management. Half of my career was spent in engineering and project management role within [the name of the company] then I spent the second half diversifying into account management, sales, sales management, marketing, business development, and competitive strategy*" (Strategy and Innovation Manager, S1)

"I was a psychiatrist nurse in the NHS. I also have a degree in health studies, and I have got a Registered Managers Awards (RMA), NVQ level four in management and leadership for care services which is the qualification required in my job" (Internal Consultant on General Leadership Development Program, S3)

This finding is consistent with the finding of Mom et al. (2009) which suggests that increasing both the breadth and depth of experience is associated with ambidextrous behaviour (Mom et al., 2009). It also confirms prior research on general self-efficacy which suggests that individuals with high general self-efficacy possess the skills and expertise required to change a situation and reach difficult goals (i.e., Chen et al., 2000) and tend to be less affected by the negative feedback associated with their failure, and that's because general self-efficacy acts as a buffer against the demoralising influence of negative feedback (Eden, 1988). Thus, it has been suggested that general self-efficacy is positively associated with ambidextrous behaviour (Kauppila and Tempelaar, 2016).

To reduce resistance to change, explorative senior and strategic managers sought to build internal linkage with their teams and management. Building internal linkage is a defence mechanism senior and strategic managers developed to build trust and counteract the anti-learning culture in which they were operating. To build this linkage, senior and strategic managers sought to initiate dialogue with their colleagues. Dialogue in this context was reinforced by the sensemaking and sense giving skills these managers demonstrated which resulted from their broad and deep knowledge and experience (see Jones and Casulli, 2014). Although it was not directly associated with individual ambidexterity, the literature on dialogue emphasises the role dialogue plays in organisational learning and strategic change (i.e., Heracleous et al., 2018; Isaacs, 1993). The quotations presented below show how dialogue was used to build internal linkage and sell issues to others.

"You take a read on the politics as well and the context is massively important. You have to be open at all times, if I see an investment opportunity, in this case you don't have to jump too fast, you have to seek more information and engage some dialogue and I think a very quick and simple actions with clients can be helpful as well" (Sustainability and Quality Manager, S4)

"*If I am not honest with you and I think there is an issue somewhere, I deny you the chance to*

respond to that. Rather than moaning behind the closed doors, I prefer to have frank and moral conversation with each other so that we can be effective. Not speaking up is considered criminal, ineffective, and inefficient. If you constantly moaning, people will stop listening to you, apart from the psychological and individual risk that might involve. I do dialogue with many people, and I believe that the only way to get things done is to make your informal arrangements because in the formal meetings people are one way" (Strategy and Innovation Manager, S2)

This finding is consistent with the findings of prior research which suggest that in their change pursuit, managers tend to build internal linkage with their colleagues and promote personal coordination mechanisms (i.e., Turner et al., 2013; Gibson and Birkinshaw, 2004). This finding is also consistent with the finding of Vallina et al. (2019) which suggests that inspirational leadership is positively related to individual ambidextrous behaviour and that the relationship between inspirational leadership and individual ambidexterity is mediated by organisational learning capability (OLC) which comprises five dimensions: experimentation, risk-taking, interaction with the external environment, dialogue and participative decision making. It also aligns with scholars' suggestion which emphasises that inspirational leaders tend to use dialogue, which is vital for knowledge creation, organisational learning, and creativity (i.e., Fletcher and Watson, 2007; Bass 1990), and emotional speech to motivate followers (i.e., Bass, 1985). However, what is distinctive about the data presented above is that it identifies dialogue as a mechanism for selling issues for both subordinates and seniors, not for subordinates only. Mom et al. (2007) was the first to examine the impact of bottom-up knowledge transfer on managers' ability to demonstrate ambidextrous behaviour, but they failed to explicitly examine the vital role dialogue plays in the knowledge transfer process. Thus, the finding of this study is considered an extension to the current body of research on individual ambidexterity.

During the interviews, managers shared with the researcher some stories highlighting the crucial role dialogue and internal linkage played in overcoming the resistance to change in their workplace and bringing their exploratory initiatives to life. One of the stories is presented below.

"*Brexit is just around the corner. Big changes are going to occur and impact the industry. You cannot just do what have always been done…… I am more than bullying my weight here. It's going to sound arrogant. The initiatives I made last year I was speaking to my boss, and he said I don't know you did that and they should not have happened in [the name of the intuition] because*

we are not ready for that and we don't have the resources for that. It's going to be worth probably more than 10 million pounds to the [the name of the intuition] for the next two year and no one else has done something like that here. In terms of my contribution to the strategic plan, it will…… (Time 51:35) I put up so much hassle and grief to get there, I think that one thing". (Strategy and Innovation Manager, S2)

Summary and Conclusion

The adverse impact of the intolerance for early failure on managers' capacity to demonstrate ambidextrous behaviour diminishes with increasing their position of authority. This finding has led the researcher to an inference that a manager's decision-making authority positively moderates the relationship between tolerance for early failure and managers' ambidextrous behaviour. The data shows that senior and strategic managers managed to overcome the anti-innovation barrier in their contexts, albeit partially (affected the volume and the type of initiatives). That was due to their decision-making authority which increased their sense of responsibility over how to best address the change in the environment. Therefore, it can be argued that top managers' passion and intrinsic motivation about change were safeguarded by their position of authority. This finding has drawn the researcher to a conclusion that contradicts the findings of Gibson and Birkinshaw's (2004) which suggest that four attributes, namely, discipline, stretch, support, and trust must be present in a context for ambidextrous behaviour to take place. The findings of this study reveal that this assumption only holds true when individual ambidexterity is examined at the lower level of the corporate hierarchy. That is, in the context where failure was not tolerated (element of trust) and the other three attributes were (discipline, stretch, and support), senior and strategic managers, compared to operations and middle managers, were able to demonstrate ambidextrous behaviour, albeit not to their full potential. Although prior research on individual ambidexterity links decision-making authority with managerial ambidexterity (i.e., Mom et al., 2009), this is the first study to investigate the role decision-making authority plays in counteracting the adverse impact of lack of tolerance for early failure on managers' capacity to demonstrate ambidextrous behaviour. Lastly, the study reveals that building internal linkage and dialogue were tools used by explorative senior managers to build trust and reduce resistance to change in their context.

4.8 Characteristics of Ambidextrous Managers

This section aims to identify key characteristics of ambidextrous managers. These characteristics are associated with the mode of balancing (the balancing mechanism) that helped managers to overcome the cognitive challenge of hosting contradictions. "How individuals move between different role identities to generate ambidexterity is, therefore, crucial to understand" (Tempelaar and Rosenkranz, 2019, pp.1518). To guarantee more flexibility during the first round of the coding process, a mix of descriptive, InVivo, and process coding were employed. The coding process for common characteristics of managers was challenging, and that's because these characteristics were not previously defined, which resulted in creating too many codes that were not necessarily associated with the research question. To overcome this issue, some codes were either deleted, renamed, or became a subcode for the main code. This made the analysis process more efficient and lessened the noise that was created by the existence of either irrelevant codes or too many main codes, and eventually resulted in the development of final themes. Two related skills of ambidextrous managers that are associated with mode of balancing were identified from the data, and these are multitasking and delegation.

- Multitasking: The findings of this study reveal that multitasking is a skill that helped managers reconcile the tension between exploration and exploitation. This suggestion is based on the quotations presented below.

"*Our work tends to be more overarching more strategically type intervention. Beyond that am also supporting team members doing work with them, helping them. Apart from that, there are elements related to communications, so I work in the functions, and I work in the quality improvement function. I have spent time talking to my boss, to the head of functions, to my director, to other people in the teams to facilitate the functions delivery which is about quality investigations, quality issues, actions, and audits. So, I have core job responsibility that is business improvement and I have functional responsibilities which is quality assurance and quality investigation audit, and a piece of development as well*" (Project Manager, OM13)

"*My typical day is dedicated to managing clients, driving new business (exploring potential business), and assisting the teams to solve their issues in delivering their work and at the end review the work products before it goes to our customers but in general, I would say 60% of my*

time is focused on managing the existing business rather than exploring new opportunities" (Director and Associate Partner, S5)

"*My daily tasks are more of exploration- driven oriented. I do operational work, but they are very much aligned to the strategic direction of my part of the organization…"* (Propositions Manager, OM5)

The above quotations suggest that the managers possessed the capability to keep one eye on short-term goals such as administration, monitoring and improvement of activities associated with existing business and other eye on long-term goals, such as experimentation and exploration.

*"All the way through that I was combining two personalities in one, the engineer the project management the deliberate and structure approach in doing things but at the same time trying to be creative and explore new ways of doing things and that obviously just for the corporate" (*Senior Project Manager, S8)

This finding is consistent with the findings of prior research which suggest that ambidextrous managers are multitaskers and tend to host contradictions (Gibson and Birkinshaw, 2004; Kauppila and Tempelaar, 2016; O'Reilly III and Tushman, 2008; Good and Michel, 2013), switch hats (Tempelaar and Rosenkranz, 2019), and have both short-term and long-term orientation (Mom et al., 2009; Gibson and Birkinshaw, 2004, Chen, 2017).

Alertness to opportunities and readiness to address issues as they arise regardless of their orientation (short-term vs. long-term) were key characteristics that distinguished ambidextrous managers from non-ambidextrous managers. These characteristics were reinforced by the **broad knowledge** managers possessed and contributed to their multitasking capability.

"*In terms of what I do on a day-to-day basis, it can vary enormously. There is no particular routine day for me. Some days I will be largely at my disk looking at delivering documentations and dealing with the stuff concerning our environmental management system. On other days I will be outwardly focused engaging with stakeholders like SEPA and the Scottish Government around their sustainable agenda with particular regards to the sustainable development goals. My portfolio is diverse. If you are to categorize my activities, I would say a lot of my day to day is about policy implementation, advocacy and behavioural change*" (Sustainability and Quality Manager, S4)

This finding is consistent with the assumption of prior research which suggests that the broadness of knowledge of ambidextrous managers has made managers more **generalists** rather than more specialists (i.e., Gibson and Birkinshaw, 2004), which in turn makes them more receptive to the change and also more alert to opportunities in their environment, and eventually more **proactive** (Woodman et al., 1993; Kao and Chen, 2016).

The data also shows that their multitasking was facilitated by their ability to build internal linkage with others. Within this context, **building internal linkage** with others acted as a means to seize opportunities as they arise. This suggestion is mirrored in the quotation below.

"*I have an example here, in the last 24 hours I had an opportunity indirectly through a colleague to influence an international forum overseas that will give us between three to six month and nine to twelve month in that time window a massive overall advantage in the project am working on but it's a low priority for my colleague. He had an opportunity to perform this morning so although I was taking time doing other things, but I decided to focus on that new thing that has arisen and I spent the whole night yesterday working on it and hand it in 1 o'clock after midnight. I got an email back from him this morning, saying he used what I sent him in the presentation he delivered and as a result we got three other countries on board supporting our project and goal now that we would not otherwise had. So, opportunism, exploratory activities…… You find an open goal so just kick it and hopefully we scored the goal and will get the benefit of that in three to six months*" (Senior Project Manager, S8)

The findings of the study also reveal that there were two modes of balancing ambidextrous managers tended to adopt: 1) temporal/sequential separation (switching between a period of exploration and a period of exploitation) which was adopted when exploration and exploitation were not perceived by managers as equally important at that specific time, and 2) simultaneous pursuit of exploitation and exploration, and was adopted when both activities were perceived by managers as equally important at that specific time.

Analysing the interviews data revealed that temporal separation was based on prioritising long terms over short terms. The quotations below contribute to this suggestion.

"*I have a particular milestone that I must meet. My main time here is dedicated to particular slots that are associated with the milestone because I have to be responsible for a number of tasks but*

also I have to be responsive to change so if someone told me that there is an opportunity to meet with the stakeholder or there is an expected opportunity to contribute to a public consultation that gives us the opportunity to express our strategic message so then I have to reprioritize my work so each day there is a need to reprioritize". (Strategy and Innovation Manager, S1)

"*I use the phrase 'business critical'. Is the task business-critical? And therefore, is it going to add value? because as you said something could be important, but it does not necessarily mean that it's going to help with our messaging, with our positioning and drive adding value at a company level so we tend to reprioritize frequently because our environment is quite dynamic so what is urgent today may not be urgent tomorrow. So, for example, today I am urgently looking for a piece of work that will be submitted to the Scottish government and that was not on my agenda last week but it on my table for this week*" (Sustainability and Quality Manager, S4)

There were incidents when both exploration and exploitation needed to be simultaneously addressed. To overcome this issue and to free more time to focus on long-term goals, ambidextrous managers tended to incline more towards delegation. Delegation was widely adopted by ambidextrous managers which paved the way for another characteristic of ambidextrous managers to emerge from the data, that is, delegator.

-Delegation:

Delegation was a means to simultaneously pursue short-term goals and long-term goals. The data shows that delegation was a tool employed by ambidextrous managers to reduce work pressure on them to free more time to focus on important and long-term goals. The quotations below contribute to this suggestion.

"*It is all about prioritization based on criticality, delegating where possible and thinking long term gains*" (Associate Partner and Director, S5)

"*We have to have information in a certain date otherwise you will be in trouble because we have deadlines and that is why I delegate a lot of stuff that is related to the FME analysis which I can do for sure, but I can show people how to do it and then I can focus on the important stuff. However, I don't think I was ever in a position where the risk and the stress level at work were so high and became an issue for me and I never reached that level, and I don't know if it's something to do*

with the person who I am. I am good in time management and prioritizing stuff" (Technical Manager, OM1)

"*I prioritize the important task for myself and delegate the staff that is more urgent to my team. Trying to empower them a little bit more, and they can always come back to me for guidance, but I always want to give them the opportunity to solve these problems. They might not get it right every time but m trying to give them the opportunity to develop their skills, and that would give me the opportunity to focus on the long-term return*" (Events and Venues Manager, OM19)

"*I think that the achievability of those objectives is very challenging because they are very high and ambitious objectives. And I don't think that the critical success factor that in order to achieve them is simply the volume of resources we have, it's not. I think what a critical success factor will be is a combination of working more smartly within the available resources and then secondly empowering others to play their role toward these goals*" (Senior Project Manager).

The data presented above also suggests that although delegation acted a means to free more time to focus on and prioritise long-term goals, it was also a means to develop subordinates and empower them to make decisions.

Scholars link sequential/temporal ambidexterity with cognitive capability. They argue that temporal ambidexterity resembles the limited cognitive capacity of individuals (i.e., managers) to simultaneously engage in exploration and exploitation activities; thus, sequential allocation of attention has been viewed as an outcome of bounded rationality and goal conflict (i.e., Levinthal and March, 1993). The findings of this research extend that of prior research and suggest that delegation enabled managers to overcome the cognitive barrier to simultaneously engage in exploration and exploitation. Whether the tension is reconciled through a simultaneous or sequential approach, individuals need to be able to flexibly cycle between the different modes within environments that are changing (Good and Michel, 2013).

In conclusion, it can be argued that ambidextrous managers possess the time management skills required to overcome the cognitive challenge of reconciling the conflicting demands of exploration and exploitation. To reconcile the tension between exploration and exploitation, managers demonstrated two skills: multitasking and delegation. Multitasking helped managers overcome the cognitive challenge of addressing exploration and exploitation activities, and was evident in prior

research (i.e., Gibson and Birkinshaw, 2004; Mom et al., 2009). Delegation is a skill managers tend to employ to overcome the cognitive challenge of simultaneously addressing exploration and exploitation. This finding is considered an extension to the ambidexterity literature. The findings of the study also suggest that delegation and multitasking were underpinned by other skills ambidextrous managers tend to possess. These characteristics are the ability to take initiative (proactiveness), to empower others, and to build internal linkage. Further, the data reveals that ambidextrous managers are generalist and alert to opportunities. The overview of the data structure for managers' skills and characteristics that contributes to shaping managers' ambidextrous behaviour is presented in table (14) below

Exemplar Quotes	**Theoretical Categories**	**Aggregate Theoretical Dimension**
"Our work tends to be more overarching more strategically type intervention. Beyond that am also supporting team members doing work with them, helping them. Apart from that, there are elements related to communications, so I work in the functions, and I work in the quality improvement function…." (Project Manager, OM13) *"All the way through that I was combining two personalities in one, the engineer the project management the deliberate and structure approach in doing things…"* (Senior Project Manager, S8)	Multitasking	Managers' Skills
"It is all about prioritization based on criticality, delegating where possible and thinking long term gains" (Associate Partner and Director, S5) *""We have to have information in a certain date otherwise you will be in trouble because we have deadlines and that is why I delegate a lot of stuff that is related to the FME analysis which I can do for sure….. I never reached that level, and I don't know if it's something to do with the person who I am. I am good in time management and prioritizing stuff"* Technical Manager, OM1)	Delegation	

"I prioritize the important task for myself and delegate the staff that is more urgent to my team. Trying to empower them a little bit more, and they can always come back to me for guidance…" Events and Venues Manager, OM19)		

Table (14): Managers' skills and characteristics that contributes to shaping managers' ambidextrous behaviour.

Summary of Chapter

The aim of this research is to advance our understanding of how managers' ambidexterity is obtained. The findings of this research unravel the organisational context and the individual skills and characteristics that shape manager's capacity to demonstrate ambidextrous behaviour. The findings of this research are presented below (Figure 4a). The figure depicts elements of organisational context that shape managers' capacity to fully achieve their potential and demonstrate ambidextrous behaviour. These elements include elements of discipline, stretch, support, and trust. The figure also depicts managers' characteristics and skills that facilitate their ambidextrous behaviour and are required to reconcile the cognitive tension of balancing exploitation and exploration. Figure (4b) shows that the variation in managers' ambidexterity is associated with their position of authority which gives them the right over how to best solve problems and set goals. The figure depicts that in the absence of tolerance for early failure (an element of trust) in the context, three attributes, namely, discipline, stretch, and support are sufficient for senior and strategic managers to demonstrate ambidextrous behaviour, albeit not to their potential. The findings presented in this chapter will be discussed in chapter five (the discussion chapter).

Figure 4(a) and 4(b): Findings

Drivers of Manager's Ambidextrous Behaviour (Unleashing Potential of Ambidextrous Behaviour)

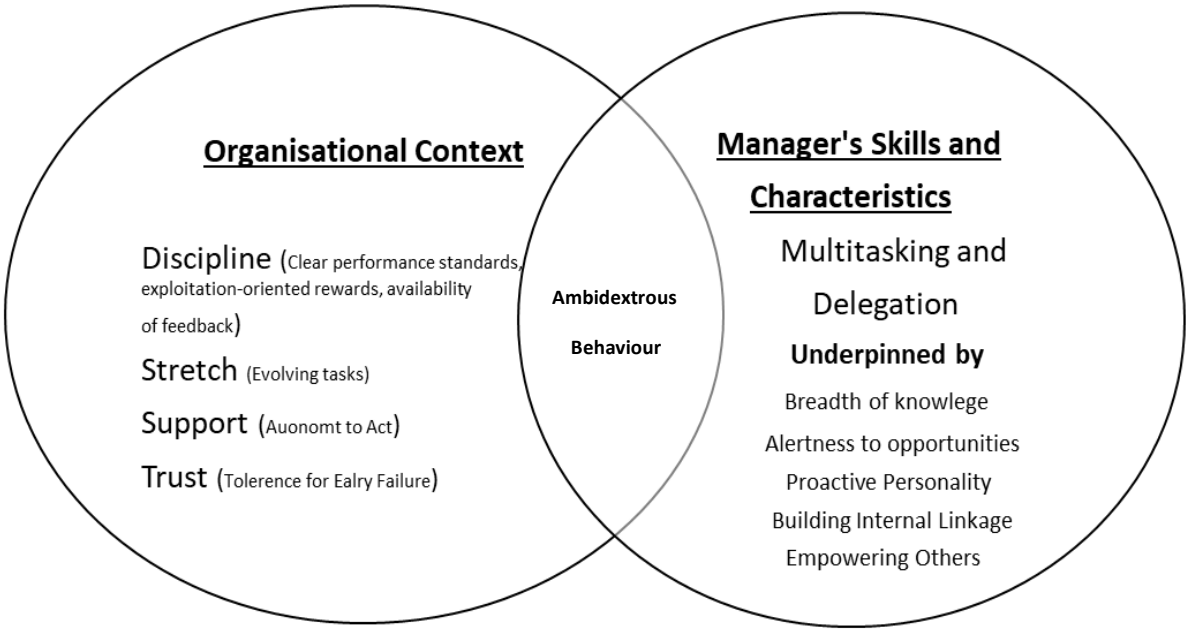

Figure (4a): Drivers of unleashing potential of manager's ambidextrous behaviour (ambidexterity across management levels).

Drivers of ambidextrous behaviour of senior and strategic managers in the absence of trust

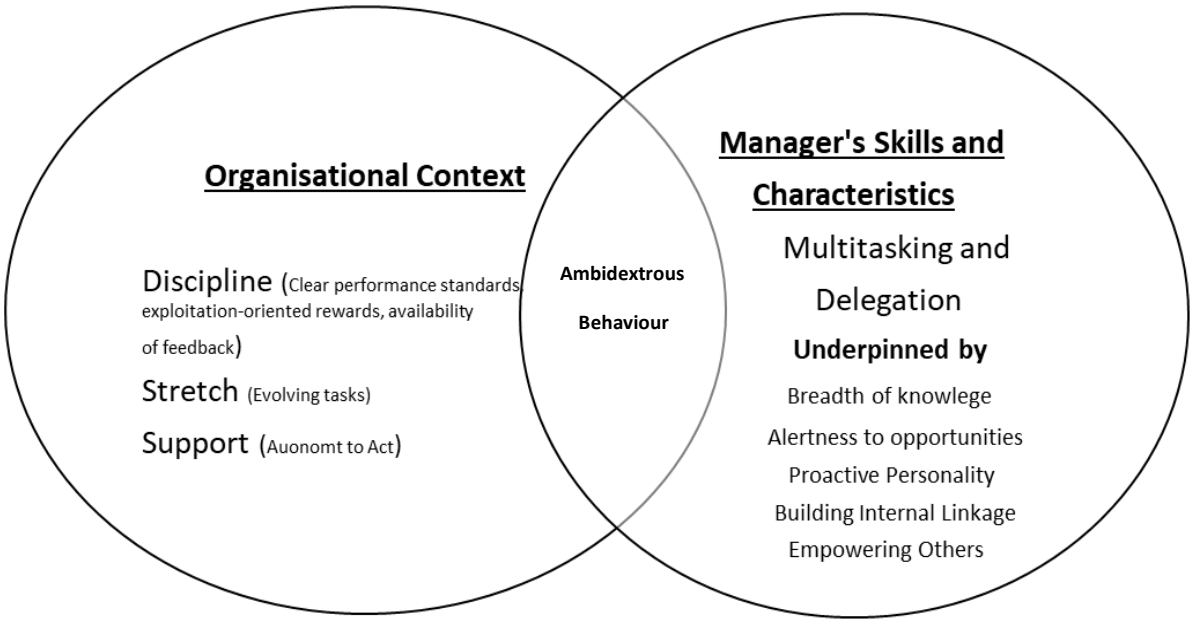

Figure (4b): Drivers of ambidextrous behaviour of senior and strategic managers in the absence of trust.

Chapter 5: Discussion

The main aim of this thesis is to extend our knowledge on how managers' ambidexterity is obtained by investigating its drivers. Prior research suggests that the more dynamic and unpredictable the environment, the more managerial ambidexterity is thought to be necessary for success (Davis et al., 2009; Good and Michel, 2013; Vallina et al., 2019). That's because as rates of change and uncertainty escalate, managers face dynamic decision making (DDM) scenarios (Smith et al., 2010; Good and Michel, 2013) which necessitate the need to integrate the contradictory demands of exploration and exploitation (i.e., Miron-Spektor et al., 2011). Despite the importance of reconciling the tension between exploitation and exploration at the level of individual managers, it can be argued that research on managerial ambidexterity is still in its infancy, and that's due to many factors, including the heavy emphasis on examining ambidexterity at the macro-level (i.e., structural separation), as well as focusing on examining the behavioural actions of those who are managing the exploration/exploitation dilemma at the expense of understanding how the differences between them affect their capability to manage it. Not to mention that the vast majority of research on managerial ambidexterity were quantitative in nature and thus did not allow us to understand the world of lived experience from the actors' point of view. These factors combined have contributed to the lack of understanding of how managerial ambidexterity is obtained and left ambidexterity theory incomplete. This study aims to fill this gap in the literature by examining drivers of managers' ambidextrous behaviour.

The researcher acknowledges that generalisability is not compatible with qualitative research; however, it can be argued that sampling from across sectors combined with "saturation" may help in drawing conclusions that are broader than the source of the primary data in this study. Scholars referred to this as "analytical generalization" or "non-statistical generalization" (i.e., Yin 2003). The findings of this study contribute to the general theory of ambidexterity and theoretical premises of individual ambidexterity and contribute to our understanding of the orchestration of managerial ambidexterity, and therefore play a part in constructing a theory. Summary of findings and theoretical contributions, practical implications, and limitations of the study are presented next.

5.1 Summary of Findings and Theoretical Contributions

Building on the notion of contextual ambidexterity and by sampling from across sectors this study advances knowledge on how managers' ambidexterity is obtained. The researcher followed Raisch et al. (2009) who suggest that when explaining ambidexterity at the individual level, organisational factors have to be considered alongside personal characteristics. To succeed in this pursuit, the researcher sought to bring together two seemingly different and opposing streams of research. The first stream suggests that individuals do not operate in a vacuum and that organisational context plays a crucial role in enabling and constraining their ambidextrous behaviour (i.e., Gibson and Birkinshaw, 2004; Kao and Chen, 2016; Zhang et al., 2018), and the second stream suggests that individuals' skills and characteristics shape their capacity to excel at reconciling the tension between exploration and exploitation (i.e., Good and Michel, 2013; Mom et al., 2009; Barile et al., 2015; Volery et al., 2015). Thus, it can be argued that this thesis views managers' ambidexterity as entirely determined by both organisational context and managers' skills and characteristics.

This study makes important contributions to theory and practice. Theoretical contributions are discussed next.

5.1.1. Managers' exploitative and explorative behaviours are not mutually exclusive.

The findings of this study reveal that there does not seem to be a tradeoff between exploitation and exploration at the individual level, and thus managers' ambidexterity can be obtained. Although prior research argues that within a single domain (i.e., managers) exploration and exploitation tend to be mutually exclusive (i.e., Gupta et al., 2006), this study provides evidence suggesting that exploitation and exploration are not mutually exclusive. This finding agrees with Mom et al., (2009) and other subsequent research (i.e., Chen, 2017) who suggests that although it is challenging to excel at both exploration and exploitation, these challenges are not insurmountable.

The study shows that managers across contexts and management levels demonstrated the behavioural capacity to demonstrate exploitative and explorative behaviour. Their exploitative behaviour involved alignment with current processes and procedures, refining and improving existing products and services, and reacting to urgent issues and matters associated with existing operations and investments. The aim of managers' exploitative behaviours was to provide continuous improvement to current products and offerings, to reduce cost (increase efficiency), to

increase productivity, and to build strong customer base.This finding shares similarities with prior research which suggests that exploitation is usually associated with terms like refinement, production, efficiency, selection, execution, and implementation (March, 1991; Levinthal and March, 1993). The three exploitative behaviours demonstrated by managers were shaped by elements of organisational context that prevailed in the workplace (i.e., discipline and stretch) (the drivers of exploitative behaviour are discussed in more detail in section 5.1.2).

Managers realised that operational capabilities were fundamental to organisations' ability to make a living and to effectively solve organisational problems. For instance, operational capabilities allowed managers to carry out their main operational and exploitative activities, which were deemed essential to meet the business day-to-day obligations. Also, managers encouraged their teams to identify and solve problems associated with current operations as they arise and provided them with the resources that helped them to help them improve their performance and deliver benefits to the business (i.e., knowledge, skills, and technical training). This finding agrees with prior research which suggests that sustainable ability of an organisation to survive and compete is derived from its ability to exploit its current resources and capabilities (i.e., March, 1991; Teece et al., 1997; Hassan et al., 2017).

That said, prior research suggest that operational excellence and customer orientation may be the key to gain competitive advantage and continuous business growth in a stable environment, but in an era characterised by changing market demand and fierce competition, sustainable ability of an organization to compete lies in its capability to maintain a balance between exploiting current competencies and exploring new opportunities (Zhang et al., 2018; Vallina et al., 2019; March, 1991; Sinha, 2015; Gupta et al., 2006; March, 1991; Levinthal and March, 1993; Tripsas and Gavetti, 2000; Stiglitz et al., 2016). That's because focusing on current operations enable organisations to live in the present and restricts their ability to be proactive and prepared for the future. The findings of this study share similarities with the above body of literature. The findings reveal that some managers were aware that focusing excessively on exploiting current competencies may be detrimental in the long run. To them, maintaining the status quo and excessive engagement in exploitation-related activities, such as reactiveness to urgent matters, were no longer enough to maintain competitiveness, prosperity, and survival in the volatile environment they operated in. Hence, they sought to engage in experimentation and exploration

activities. The study reveals that forward-thinking, proactiveness and driving change were exploratory behaviours demonstrated by explorative managers. The aim of these behaviors was to meet the changing demand of the customers, to find new ways to solve current business issues, and to speed up innovation. This finding agrees with prior research which suggests that exploration is associated with terms like variation, search, experimentation, innovation, flexibility discovery (March, 1991; Levinthal and March, 1993), the search for new adaption (Mitchell, 1996), the search for new information (Fang and Levinthal, 2009), differentiating strategy (Porter, 1980, 1996), double-loop learning (Argyris and Schon, 1978), and generative learning (Senge, 1990). These exploratory behaviours were shaped by elements of organisational context that prevailed in the workplace (i.e., autonomy to act and tolerance for early failure), and also by their individual skills and characteristics (the drivers of exploratory behaviour are discussed in more detail in section 5.1.2, 5.1.3, and 5.1.4).

5.1.2. Managers do not operate in a vacuum.

The findings of this study support those from prior research which suggest that managers do not operate in a vacuum, and that organisational context plays a crucial role in shaping their behaviour (i.e., Kauppila and Tempelaar, 2016; Vallina et al., 2019; Gibson and Birkinshaw, 2004; Birkinshaw and Gibson, 2004; Zhang et al., 2018). Although prior research claims that untangling the effects of organisational settings is necessary to understand ambidextrous behavior at the individual level, it fails to explain how these settings may enable or constrain managers' capacity to engage in exploitation and exploration. As highlighted in the earlier literature review chapter, Gibson and Birkinshaw (2004) were the first to suggest a framework of four attributes of organisational context (discipline, stretch, support, and trust) that must be present in order for individuals to be ambidextrous. However this proposed framework of contextual factors does not show how the four attributes reconcile tension between exploitation and exploration activities, and subsequent research has not verified the accuracy of the four attributes (Zhang et al., 2018), nor explored the role they play in shaping managers' capacity to demonstrate ambidextrous behaviour.

Addressing this limitation, this doctoral research contributes to knowledge of how organisational context shapes managers' capacity to engage in exploitation and exploration activities. Specifically, this thesis extends Gibson and Birkinshaw's (2004) framework by showing how each

attribute of the organisational context (discipline, stretch, support, and trust) shapes managers' capacity to demonstrate ambidextrous behaviour. The explanatory depth detailed in the findings and analysis chapter provides a point of departure for further theoretical development and also managerial practitioners.

This thesis extends theoretical understanding of managerial ambidexterity by connecting empirical findings of managerial level effects to the ambidexterity literature, including Gibson and Birkinshaw's (2004) organisational contextual factors framework. In so doing, this thesis contributes to the ambidexterity literature by enhancing our understanding of the influence of organisational settings on managers' behaviours and practices. As argued in the preceding chapters, this study finds that not all of Gibson and Birkinshaw's (2004) proposed organisational contextual factors are equally effective in encouraging managers to incline towards exploitation and/or exploration, and that the extent to which these factors are experienced by managers will shape the extent to which they act in an ambidextrous way.

This study thus contributes to knowledge about the impact of organisational context on ambidexterity; adding new insights to the literature that examines the influence of organisational context on shaping manager' behaviour and practices (i.e., Chen, 2017; O'Reilly and Tushman III, 2013). The findings of this study show how organisational context can impact on managers' decisions and behaviours (i.e., how to attend to problems arising). The study concludes that tolerance for early failure (element of trust) is a critical requirement for exploration to take place among managers, regardless of position in the organisational hierarchy. In other words, the findings of the study suggest that tolerance for early failure is the attribute of organisational context that has most influence on the extent to which managers will engage in exploratory behaviour. This key finding can be expressed as a theoretical proposition – the extent to which tolerance for early failure is experienced by managers as an attribute of organizational context will shape the extent to which managers are willing to engage in exploratory behavior. Connecting with propositions in the extant ambidexterity literature that exploration often starts out as early failure and disappointment (Chen, 2017), this theoretical proposition extends understanding – supported by empirical findings - of how organizational context influences ambidextrous behaviours in managers. This theoretical proposition also draws practitioners' and researchers' attention to how

any organizational activities, attitudes and behaviours that shape tolerance for early failure will also have an impact on the extent to which managers might act in an ambidextrous way.

Although empirical studies based on Gibson and Birkinshaw's (2004) framework have examined the influence of organisational context on the ambidexterity of managerial (i.e., Mom et al., 2009) and non-managerial employees (i.e., Vallina et al., 2019) at an aggregate level, the impact of the tolerance for early failure on individual managers' ambidexterity has not previously been examined. Further, as noted by Chen (2017), tolerance for early failure has yet to make incursions into mainstream ambidexterity literature. Thus, this thesis contributes to the management literature by extending theoretical understanding of how tolerance for early failure contributes to ambidexterity at the managerial level, and the stream of research which suggests that organisational context may either enable or inhibit managers' ambidexterity (i.e., Kauppila and Tempellar, 2016).

Expanding on how this thesis relates to the ambidexterity literature, this study investigates the impact of the four attributes of organisational context (discipline, stretch, support, and trust) on managers' capacity to demonstrate ambidextrous behaviour. The findings of this study share similarities with Gibson and Birkinshaw (2004). These findings reveal that the three exploitative behaviours demonstrated by managers (alignment with current processes and procedures, refining and improving existing products and services, and reacting to urgent issues and matters associated with existing operations and investments) were shaped by attributes of organisational context that prevailed in their workplace, including discipline (i.e., clear performance standards) and stretch. These behaviours were reinforced by technical training (element of support) that was offered to managers to equip them with the technical skills needed to excel at the task at hand, exploit current competencies and obtain operational excellence. The organisational context attributes mentioned above were very effective in helping managers address operational and daily tasks problems. That said, the findings on the influence of the four attributes of organisational context (discipline, stretch, support, and trust) on managers' capacity to demonstrate ambidextrous behaviour indicate that not all the four attributes were equally effective. For instance, the study finds no support to Gibson and Birkinshaw's (2004) claim which suggests that the consistency in the application of rewards and incentives (an element of discipline) contributes to shaping managers' exploitative

behaviour. The study reveals that three out of four attributes of discipline were only found to contribute to shaping managers' exploitative behaviour. These attributes are clear performance standards, the availability of feedback, and the availability of incentives (exploitation-oriented incentives). In other words, the non-existence of the consistency in the application of rewards did not adversely impact on managers' tendency to meet their implicit or explicit commitment to the current operations of the business. This is perhaps due to the performance management practices adopted in their setting and to earning above average-market salary (competitive salary) in the market. This claim can be made because managers who demonstrated exploitative behaviour and who also claimed that their exploitative accomplishments and initiatives were not rewarded had earned above average-market salary and had also operated in a context where performance was associated with productivity, measurable outcomes, and quantitative goals. Although Gibson and Birkinshaw (2004) and Birkinshaw and Gibson (2004) suggest that incentives motivate managers to do the best of their ability, the role competitive salary plays in overriding the adverse impact of the lack of consistency of incentives on managers' commitment to their daily task was neglected in the managerial ambidexterity literature. Thus, this finding serves as a contribution and an extension to this literature. Further, this study suggests that earning above-average salary in the market may impede exploration and reduce the likelihood of double-loop learning to take place. The findings of this study reveal that earning above average-market salary induced some managers, particularly those who were doing an activity for the sake of rewards it offers (Deci and Ryan, 1985) to romanticise their myopic and path dependent seniors rather than challenging their beliefs and assumptions even in the case of disagreement, especially when deviating from seniors' beliefs is associated with risk. This is considered a contribution to ambidexterity literature and requires further investigation by future research.

With respect to the effectiveness of the four attributes of organisational context (discipline, stretch, support, and trust), the findings of the study reveal that tolerance for early failure (element of trust) is more impactful than exploration-oriented rewards and exploration-oriented training (elements of support). That is, in the context where early failure was tolerated but lacking exploration-oriented incentives and/or lacking exploration-oriented training, the majority of managers were geared towards exploration activities, but the opposite did not hold true. This suggests that the adverse impact of lacking either or both elements on managers' tendency to incline towards

experimentation and trying new things was overridden by the high tolerance for early failure that prevailed in the context and also by their individual skills and characteristics (i.e., proactivity) that were deemed essential to engage in divergent and paradoxical tasks (these skills and characteristics will be discussed in section 5.1.4).

Further, the study reveals that autonomy to act (element of support) was not on its own sufficient to drive exploratory behaviour of all the managers from across the management levels. Some managers clearly expressed that although they had the autonomy to make decisions and deviate from the traditional ways of doing things in their business unit, they preferred to stick to established procedures and current assumptions even in the case of disagreement. That's because failure that results from exploration and trying something new things, or what scholars call "intelligent failure" (Pfeffer and Sutton, 2000) was not perceived as a learning opportunity, or as a part of the innovation process (byproduct of innovation) in their context, but something to be ashamed of. Hence, they were intimidated by the consequences of failure (if occurs), and some of them even viewed trying new things as a risk-taking behaviour that must be avoided (how managers perceived and coped with the lack of tolerance for early failure is discussed further in section 5.1.3).

The fear of deviating from the traditional ways of doing things that prevailed in the lack of tolerance for early failure context inhibited swift decision making and creativity in the workplace, which in turn created a burnout context in which managers suffered from anxiety and stress. Even senior and strategic managers who despite their' position of authority and closeness to the highest decision-making authority in their organisations did not feel comfortable working in such environment and some of them refused to carry on working in it. This finding shares similarities with Gibson and Birkinshaw (2004) who suggest that the lack of social support and trust creates a burnout context and eventually lead to high employees turnover, which in turn makes ambidexterity difficult to achieve.

The findings of the study reveal that tolerating early failure not only gave managers the autonomy to act, but also enabled them to make decisions on emerging issues without the need to grant approvals from their seniors (swift decision making), which in turn allowed to promptly respond to these issues. This finding shares similarities with prior research which argues that swift decision-making and speedy response are vital for maintaining competitiveness, especially in a highly dynamic environment where the rate of change continues to rise, and managers face dynamic

decision-making scenarios (i.e., Good and Michel, 2013). This finding also shares similarities with Gibson and Birkinshaw (2004) and other subsequent research (i.e., O'Reilly III and Tushman, 2008; Simsek, 2009; O'Reilly III and Tushman, 2013) which suggests that both latitude (autonomy to act) and security are vital for enabling the exploratory behaviour of managers, but failed to examine the key role of security in enabling autonomy to act (security as a driver to autonomy to act). To the best of the researcher's knowledge, this is the first study to examine the interplay between autonomy to act and trust (security).

What is distinctive about this thesis that it suggests that tolerance for early failure is the determinant attribute of organisational context that induces managers at all management levels to release their potential of exploratory behaviour. Because exploration often leads to early failure and disappointment, this study suggests that tolerance for early failure is exactly what is needed to speed up innovation and to engage in higher level of exploration (double-loop learning). Thus, any attempt to induce managers to go beyond what is unknown, to challenge current traditions and practices, and to discover their potential of exploratory behavior will go awry if not accompanied by an organisational culture that accommodates early failure.

Overall, current findings imply that the four attributes of organisational context are necessary and contributed to shaping managers' exploitative and explorative behaviour. These behaviours assisted in balancing short and long-term goals thus ensuring that the organisation remains competitive.

5.1.3. Increasing a manager's decision-making authority increases his/her tendency to demonstrate ambidextrous behaviour.

This study suggests that managers within a context vary in the extent to which they are ambidextrous, and this variation is associated with their position of authority and role identity. Positioning this finding relative to existing ambidexterity literature reveals similarities. For instance, Mom et al. (2009) emphasise that managers' decision-making authority is positively related to their ambidexterity. That's because increasing a manager's decision-making authority increases his/her tendency to seek solutions to emerging problems both within and outside the framework of existing beliefs and strategies (Mom et al.,2009; Sheremata, 2000), and to rely more

on his/her knowledge, skills, and expertise rather than on existing rules or expertise of superiors (Hage and Aiken, 1967). This also agrees with Brusoni and Rosenkranz (2014) and Tempellar and Rosenkranz (2019) who suggest that managers' behavior is tempered by the nature of the role a manager occupies in the organization.

The findings of this study reveal that the tension of exploration and exploitation are spread throughout the organization not only isolated at the top management team. For instance, senior and strategic managers were faced with the challenge of reconciling the tension between exploration and exploitation at the strategic level whereas middle and operations managers had to deal with this tension but at the operational level. This has led the researcher to infer that where some managers were ambidextrous because they engage in exploration activities along the supply chain, others were ambidextrous because they engage in higher level of exploration activities beyond the current scope of operations. This finding suggests that there are multiple paths to ambidexterity. Although Gibson and Birkinshaw (2004) argue that there are different paths to ambidexterity, their study was limited to examining them at the business unit only. Based on this finding, it can be argued that how managers perceive and reconcile the tension between exploration and exploitation is highly dependent on their responsibilities and on their position in the corporate hierarchy. What is distinctive about this thesis that it extends our understanding on how the tension between exploration and exploitation is viewed and reconciled across management levels. In addition, it was also revealed that operations and middle managers were more committed to exploitation activities such as maintaining high level of efficiency and alignment, compared to their seniors who were more committed to maintaining high level of strategic flexibility and agility, and that was due to the nature of their jobs and responsibilities.

The findings also reveal that managers' reactions to the anti-learning environment (lack of tolerance for early failure context) in which they operated varied, and this variation is again related to their position they occupied in the corporate hierarchy. The findings show that managers' coping mechanism varied from developing a defence mechanism with the aim of blending in with the surroundings and was evident in the context of middle and operation managers, to developing a defence mechanism with the aim of challenging the status quo in their setting and was evident in the context of senior and strategic managers. To blend in with the surroundings, managers

separated themselves from the unpleasant events and risks associated with exploration activities by burying their heads in the sands "ostrich effect" (see Karlsson et al., 2009), focusing on the lower elements of the system (see Sanchez and Heen, 1997), clinging to the traditional ways of doing things, and increasing their use of cognitive simplification processes such as 'rule of thumb' (Mellahi and Wilkinson, 2005). Within this context, autonomy to act was narrowly defined and was a means to solve well-structured and repetitive problems to increase productivity and efficiency (exploitation-oriented objectives). Although the findings of this thesis shares similarities with the prior research discussed above, what is distinctive about this study and considered a surprising outcome to the researcher is that some middle and operations managers who operated in this anti-learning environment altered their conceptualisation of innovation and associated it with chaos. The role organisational context plays in shaping how managers perceive and cope with the change in their environment is considered an extension to the current body of research on managerial ambidexterity.

Contrary to how middle and operations manager who were reluctant to challenge the status quo in their organisations acted, even in the case of disagreement, senior and strategic managers could not turn a blind eye when things were not done appropriately. To them, lack of tolerance for early failure created a tension between their commitments to their roles (as strategic planners and change agents) and their internal organisational culture. They believed that they possess the skills and expertise required to change a situation and reach difficult goals (general self-efficacy), hence they tended to be less affected by the negative feedback associated with their failure (Chen et al., 2000; Kauppila and Tempelaar, 2016), and that's because general self-efficacy acted as a buffer against the demoralising influence of negative feedback (Eden, 1988). This finding extends the findings of prior research discussed above and suggests that the higher the position of authority the more a manager believes that he/she can change a situation and initiate change. This finding also suggests that the adverse impact of the lack of tolerance for early failure on managers' capacity to demonstrate ambidextrous behaviour diminishes as their position of authority increases. Thus, it can be argued that the senior and strategic manager's passion for change was safeguarded by their position of authority which gives them the right over how to best solve problems and set goals (see Mom, 2009). Although the prior research discussed above (i.e., Mom et al., 2009) links decision-making authority with managers' tendency to demonstrate ambidextrous behaviour, this is the first study to investigate the role position of authority plays in mitigating the adverse impact of lack of

tolerance for early failure on managers' capacity to demonstrate ambidextrous behaviour. Thus, is considered a contribution to the managerial ambidexterity literature.

Overall, current findings imply that four attributes of organsational context (discipline, stretch, support, and trust) must be present in a context in order to induce operations and middle managers to incline towards both exploitation and exploration activities, whereas in the case of senior and strategic managers three attributes (discipline, stretch, and support) were sufficient (albeit not to their potential). Thus, it can be argued that Gibson and Birkinshaw's (2004) suggestion which states that four attributes of organisational context (discipline, stretch, support, and trust) must be present in a context in order for ambidexterity to take place holds true only at operations and middle management level and is highly contingent on whether the researcher is taking the magnitude of involvement (i.e., exploring the potential) in an activity (exploration vs. exploitation) into consideration.

Despite the fact that operations and middle managers are the ones who possessed direct interaction with customers and are therefore aware of their latent demands, this thesis argues that senior and strategic managers are in a better position to facilitate ambidexterity and initiate change, especially in an anti-learning context. Because the locus of power is most likely with managers' direct supervisors, this thesis argues that perhaps operations and middle managers need ambidextrous supervisors and seniors to pave the way for them to engage in experimentation, especially when operating in a context where failure is not permitted.

The findings of the study also reveal that aside from organisational context that influenced managers' tendency to incline towards exploration, hosting contradictions and maintaining a balance between the two opposing demands of exploration and exploitation require specific skills and characteristics. These skills and characteristics are discussed in the next section (5.1.4).

5.1.4. Managers' skills and characteristics play a key role in shaping their capacity to demonstrate ambidextrous behaviour.

The findings of this study reveal that for managers' ambidexterity to take place, organisations need not only a context that accommodates early failure, or a position of authority to pave the way for swift decision making to take place, but also managers with specific skills and characteristics. Unfortunately, individual managers may not be equally skilled at all types of mental activities

(Helfat and Peteraf, 2015). This study which includes interviews with managers from senior executives to operations managers extend prior research on managerial ambidexterity (i.e., Good and Michel, 2013; Mom et al., 2009; Volery et al., 2015) and identifies key characteristics and skills of ambidextrous managers that are required to reconcile the tension between exploration and exploitation. The findings of the study unravel two main related characteristics of ambidextrous managers that facilitate their ambidextrous behaviour and help them overcome the cognitive challenge of engaging in divergent activities: ambidextrous managers are multitaskers and delegators. Although the findings of this study share similarities with prior research which suggests that ambidextrous managers are multitaskers (i.e., Gibson and Birkinshaw, 2004; Mom et al., 2009) and hosting contradictions (Tushman and O' Reilly, 1996), delegator is another characteristic that ambidextrous managers possess and is yet to be introduced and researched in the managerial ambidexterity literature. Thus, this finding is considered a contribution to the managerial ambidexterity literature.

The findings of the study show that managers were aware of the need to maintain competitiveness in the dynamic environment they operated in. Thus, they tended to multitask and delegate tasks in order to meet deadlines, to meet customers' expectations, and to deliver on the objectives of a current or a new project or an investment. Multistaking and delegation helped managers to stay in control and respond to customers' demand and to the change in their environment in a timely manner, and faster than their rivals, where possible. That's because multitasking and delegation allowed to avoid both procrastination and working under pressure. Moreover, it was revealed that managers who multitasked and delegated tasks demonstrated an ability to take both short-term and long-term objectives into consideration. Thus, it can be argued that these managers possessed the time management skills required to host contradictions and overcome the challenge of reconciling the conflicting demands of exploration and exploitation. Further, although delegation acted a means to free more time to focus on and prioritise long-term goals, it was also a means to develop subordinates and empower them to make decisions.

There are two modes of balancing between exploration and exploitation ambidextrous managers tended to adopt: 1) temporal/sequential separation (switching between a period of exploration and a period of exploitation) and was adopted when managers did not perceive exploration and exploitation as equally important at that specific time, and 2) simultaneous pursuit of exploitation

and exploration, and was adopted when both activities were perceived by managers as equally important at that specific time. To switch between exploration and exploitation managers tended to draw on their multitasking skills, but when both exploration and exploitation needed to be simultaneously addressed, they sought to delegate exploitative and urgent tasks to their team. This finding suggests that delegation is a skill managers tended to employ to overcome the cognitive challenge of simultaneously addressing exploration and exploitation. This agrees with the suggestion of Levinthal and March (1993) who link sequential/temporal ambidexterity with cognitive capability and argue that temporal ambidexterity resembles the limited cognitive capacity of individuals (i.e., managers) to be simultaneously involved in exploration and exploitation activities; therefore, sequential allocation of attention has been viewed as an outcome of bounded rationality and goal conflict. That said, this study agrees with the argument of Good and Michel (2013) which suggests that whether the tension is reconciled through a simultaneous or sequential approach, managers need to be able to flexibly cycle between the different modes within environments that are changing. What is lacking in the managerial ambidexterity literature that it does not investigate under which conditions managers tend to prioritise the simultaneous approach over the sequential approach and vice versa. Thus, the findings discussed above extends our knowledge on the criteria managers apply when they decide to multitask and delegate tasks.

Another salient finding from this study is that delegation and multitasking skills were underpinned by other characteristics and skills ambidextrous managers possessed. These characteristics include the ability to take initiative (proactive personality), and to build internal linkage with their colleagues. Managers also possessed broad knowledge and were alert to opportunities. This finding suggests that managers who possess these skills and characteristics are more likely to engage in paradoxical activities and contribute to maintain the competitiveness of their organisations. Although these skills and characteristics were identified in prior research (i.e., Gibson and Birkinshaw, 2004 and Mom et al., 2009), they were not viewed as key underpinnings and influencing drivers of managers' key ambidextrous characteristics (i.e., multitaskers) and of also their ability to look forward and focus on the long term, especially in the absence of specific elements of organisational context (i.e., rewards) that were associated by prior research as drivers to ambidextrous behaviour (i.e., Chen et al., 2017).

As discussed earlier, the lack of exploration-oriented rewards and exploration-oriented training did not adversely impact on managers' tendency to engage in experimentation activities and demonstrate ambidextrous behaviour. Their exploratory behaviour was underpinned by their intrinsic motivation that is associated with their proactive personality and by their breadth of knowledge which allowed them to see the big picture. This aligns with the Viable System Approach (VSA) which suggests that specialisation and training programmes are incapable of equipping managers with the skills needed to deal with unfamiliar problems and address changing needs (Barile, 2015). This also share similarities with the findings of prior research which suggest that that there is a positive relationship between intrinsic motivation and individual ambidexterity (i.e., Kao and Chen, 2016), proactive personality and intrinsic motivation are the core individual characteristics for employees creativity (Woodman *et al.*, 1993; Kao and Chen, 2016), intrinsically motivated employees may seek to do well on their jobs even if their efforts are not rewarded (Vroom, 1964), and ambidextrous managers are more generalists rather than more specialists (i.e., Gibson and Birkinshaw, 2004). What is distinctive about the finding discussed above is that it suggests that managers' proactive personality and their breadth of knowledge override the adverse impact of the lack of exploration-oriented training on managers' tendency to focus on the long tun, to think outside of the box, and to incline towards exploration, and this is considered and extension to the managerial ambidexterity literature.

The findings also revealed that managers who challenged the status quo in their setting sought to build internal linkage with their colleagues in order to build trust and to draw their attention to the need to look forward, embrace change, and seize opportunities as they arise. In other words, building linkage with colleagues was a means to reduce resistance to change and enable swift decision making in order to respond quickly to the needs of the market. Moreover, ambidextrous managers also encouraged their teams to challenge the status quo and seek solutions beyond what was already known. To build this linkage, managers sought to initiate dialogue with their colleagues. Dialogue in this context was reinforced by the sensemaking and sense giving skills these managers demonstrated which resulted from their broad and deep knowledge and experience (see Jones and Casulli, 2014). Although it was not directly associated with individual ambidexterity, the literature on dialogue emphasises the role dialogue plays in organisational learning and strategic change (i.e., Heracleous et al., 2018; Isaacs, 1993). This finding also aligns

with the findings of prior research which suggest that in their change pursuit, managers tend to build internal linkage with their colleagues and promote personal coordination mechanisms (i.e., Turner et al., 2013; Gibson and Birkinshaw, 2004). This finding is also consistent with the finding of prior research which suggests that inspirational leaders tend to use dialogue, which is considered vital for knowledge creation, organisational learning, and creativity (i.e., Fletcher and Watson, 2007; Bass 1990; Vallina et al., 2019), and to use emotional speech to motivate followers and introduce change (i.e., Bass, 1985). What is distinctive about this study is that it identifies dialogue as a mechanism for selling issues for both subordinates and seniors, not for subordinates only. Despite the critical role dialogue plays in fostering knowledge creation and change, it was neglected in the ambidexterity literature. Mom et al. (2007) was the first to examine the impact of bottom-up knowledge transfer on managers' ability to demonstrate ambidextrous behaviour, but they failed to explicitly examine the vital role dialogue plays in the knowledge transfer process. Thus, the finding of this study is considered an extension to the current body of research on managerial ambidexterity.

In the next sections, implications for practitioners, limitations of the study, and directions for future research will be highlighted.

5.2 Practical Implications

This study provides interesting results for practice. First, the study shows that manager's ambidexterity can be obtained in practice and that ambidextrous managers tend to be more creative and engage in higher level of exploration activities. Organisations thus should consider fostering managers' ambidexterity to maintain competitiveness and prosper in an environment characterised by high level of uncertainty and rapid change (Davis et al., 2009; Good and Michel, 2013; Vallina et al., 2019). To succeed in that pursuit, the study shows that organisations need not only supportive context, but also managers with specific skills and characteristics to act in favor of exploitation and exploration. Only then, the ambidextrous behaviours are likely to spread across the organisation. That's because managers tend to influence other employees' behaviour and actions through their practices (Mom et al., 2009) which then expands to become a collective behaviour between members in a business unit, which eventually leads to increasing the competitiveness, agility, and resilience of the organisation (Gibson and Birkinshaw, 2004).

Second, the study shows that to unleash the potential of managers 'ambidextrous behaviour, organisations must focus on both performance management and social support (Gibson and Birkinshaw, 2004). It also suggests that in a bid to speed up innovation and encourage managers to engage in higher level of exploration learning, organisations must not only give managers autonomy to act but also provide an environment that tolerates early failure, which in turn encourages managers to experiment without being intimidated by the outcome. The study also shows that any attempt to encourage managers, primarily those who operate at the lower level of the corporate hierarchy, to go beyond what is unknown will go awry if failure is not perceived as a part of the innovation process. The role middle and operations managers plays in maintaining competitiveness should not be overlooked because they are the ones who possess direct interaction with customers and are therefore aware of their latent demands (Herhausen and Schögel, 2013). This study argues that the lower the manager in the corporate hierarchy, the more he/she is aware of the latent needs of customers. Thus, empowering them to take initiatives decreases the time it takes to address these needs which in turn contributes to maintaining the competitiveness of the organisation. This study claims that although failure that is associated with innovation and trying something new often consumes resources and incurs cost in the short run, it often leads to maintain competitiveness in the long run (Chen 2017).

Third, the study also suggests that to guarantee that failure, if occurs, results from purposeful experimentation and not from a lack of technical skills and knowledge, organisations must invest in human capital and choose their managers carefully. This to ensure that they possess the technical skills needed to handle their day-to-day duties in an efficient and effective way, and at the same time ensure they are proactive and possess broad knowledge to sense opportunities and deal with emerging demands and ambiguous situations associated with their task environment.

This study agrees with Jain (2016) who suggest that hiring helps organisations evolve their knowledge and counter the effects of obsolescence as they age through disrupting routine, introducing distant knowledge, and facilitating socialisation. This study suggests that to increase the disruption to routine and decrease inertia and groupthink, organisations must consider hiring those who are not necessarily matching culturally with them. That's because diversity hiring tends to generate broader cognitive maps and initiate change in the organisation. Organisations may also benefit from hiring managers who possess social and communication skills and who are able to

build internal linkage with others in the organisation to reduce resistance to change and to persuade them to undertake new initiatives (Helfat and Peteraf, 2015).

Fourth, the study shows that earning above-average market salary may impede exploration and reduce the likelihood of double-loop learning to take place; hence it induces employees to romanticise their seniors and follow them rather than challenging their beliefs and assumptions, especially when deviating from seniors' beliefs is associated with risk. Therefore, this study suggests that in order to promote change in an environment characterised by fierce competition and rapid change, organisations have to carefully craft their incentive structure and performance management in order to reduce inertia, encourage creativity, and drive change.

5.3 Overall Limitation and Directions for Future Research

Concerning limitations, some limitations of this study are worth discussing. Firstly, the interrelation between activities. Drawing a line between exploring along the supply chain/same trajectory and exploring a new trajectory was challenging, especially when examining ambidexterity across the corporate hierarchy. Prior research suggests that the lines between exploration and exploitation are not always clear, and that's because the two activities are interrelated (i.e., Lavie et al., 2010). For example, when individuals engage in exploitation activities, they also engage in some experimentation, and when individuals engage in exploration activities, they sometimes use established procedures (Farjoun, 2010). This interrelation between the two activities results in facing difficulties in identifying where adaptive learning that is associated with exploitation activities stops and generative learning that is associated with exploration activities starts and relies to a great extent upon the subjectivity of the researcher (Sadler-Smith et al., 1999) as cited in Cope (2003). To overcome this barrier, the researcher sought to adopt a few techniques, and this includes adopting a broader conceptualisation of exploration that encapsulates both types of innovation, as well as encouraging participants to use a storytelling approach to question the underlying reasons of their behaviour. Although these techniques were beneficial for the researcher and contributed to answering the main research questions of this study, further empirical and in-depth research is needed to support the arguments raised from this study.

Secondly, not all the exploration and exploitation activities in this study were captured in real-time; some of them were based on past events. The researcher acknowledges that referring to past

events and behaviour is highly dependent on the capability of participants to recall these events and comment on them.

Thirdly, it was argued that opportunity recognition differs among individuals because they vary in the volume and type of information and knowledge available to them (Yeganegi et al., 2019; Baron and Ensley, 2006). Similarly, the findings of this thesis reveal that managerial ambidexterity is tempered by the nature of the role a manager occupies in the organization (see Brusoni and Rosenkranz, 2014). Because role identity plays a crucial role in determining the expectations and requirements from an individual holding a position, and also influences how information is being assessed and the decision and behaviour he/she considers, it's unclear the role intentionality plays in the realisation of managerial ambidexterity. Thus, examining the role intentionality plays in the realisation of managerial ambidexterity requires further investigation by future research.

Lastly, selecting participants from a wide range of industries help the researcher to identify common themes associated with organisational context and managers' characteristics that shape their capacity to reconcile the conflicting demands of exploration and exploitation. This means that the study does not take into consideration the specific characteristics of each industry the business is performing in which might further influence the management of ambidexterity tension. Therefore, it is recommended that future research replicate this study and focus on a specific industry.

Chapter Six: Conclusion

A growing body of research has presented evidence suggesting that the more dynamic, unpredictable the environment, the more managers' ambidexterity is required for success and long-term survival. Yet, existing research has not crystalised what are the drivers to managers' ambidexterity and how they shape managers' capacity to accommodate the two opposing demands of exploitation and exploration. In order to address this gap, the study adopted a non-random (non-probability) that is based on selecting participants from a wide range of industries (both service and manufacturing industries). The study increases knowledge on managers' ambidexterity and shows that exploitation and exploration are not always competing activities but can be both addressed at the individual level of managers. The study also increases knowledge on drivers of managers' ambidexterity by bringing together two different streams of research: the first stream suggests that managers do not operate in a vacuum and that organisational context shapes their capacity to balance exploration and exploitation (i.e., Gobson and Birkinshaw, 2004) and the second stream suggests that managers are not equally skilled at all types of mental activities and that managers' skills and characteristics play a key role in shaping their capacity to reconcile the tension between exploitation and exploration (i.e., Mom et al., 2009; Barile et al., 2015; Volery et al., 2015).

The study provides evidence suggesting that both organisational context and individual skills and characteristics of mangers play a role in influencing and shaping managers' capacity to host exploration and exploitation. It also reveals that managers' ambidexterity does not only require a supportive organsational context (that are based on the interaction of discipline, stretch, support, and trust) that encourages managers to make their own judgements as to how to deliver value to existing customers, while at the same time remaining on the look for changes and seizing opportunities as they arise, but it also requires managers with specific skills and characteristics to be able to recognise and sense opportunities, to respond to emerging threats by engaging in exploration activities, and to build internal linkage with his/her colleague to reduce resistance to change. Thus, the study suggest that managers' skills and characteristics should be considered during recruitment processes.

Prior research suggests that knowledge is the most important intangible asset in modern economy and according to knowledge-based view (KBV) organizations need knowledge or Intellectual

capital to maintain survival in intensive competition (Hassan et al., 2017). Not surprising that organisations and managers strive to use this asset for the benefit of the organisation (Tseng and Lee, 2012). Therefore, this study suggests that if organisations want to enhance their ambidexterity, it is not knowledge itself that is important, but rather their capacity to tolerate early failure and encourage individual managers to use their knowledge to challenge the status quo in the organisation and engage in experimentation without being intimidated by the consequences. Contrary to this, the findings of this study reveal that not all organisations succeeded in creating a learning environment that is based on promoting trust and on treating failure as a learning opportunity as well as a part of the innovation process, and as a result failed to create a context that promotes innovation and learning between managers.

The study shows how managers vary in the way they view and reconcile the tension between exploitation and exploration and reveals that this variation is associated with their position of authority. Therefore, the study indicates that senior and strategic managers are in a better position to facilitate ambidexterity and initiate change, especially in an anti-learning context. Further, this thesis posits that perhaps operations and middle managers need ambidextrous supervisors and seniors to pave the way for them to engage in experimentation, especially when operating in an anti-learning context.

The framework suggested in this study paves the way for managers' ambidexterity to take place which then expands to become a collective behaviour between members in a business unit and eventually increases the competitiveness, agility, and resilience of the organisation (Gibson and Birkinshaw, 2004).

The researcher hopes that the findings of this thesis have advanced our understanding of managers' ambidexterity. The notion of managerial ambidexterity is still in its infancy; therefore, more qualitative, preferably context sensitive research, is required to understand the notion and its drivers.

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Appendices

Appendix (1)

Pilot Study Experience:

- **Research Context**

Following Mom et al.'s (2009) recommendation, investigating managerial ambidexterity dictates examining managers whose firms are confronted with pressure to explore and exploit. The pilot study interviews revealed that organisations which operated in the third sector were striving to survive and hardly managed to meet their day-to-day obligations, and that's due to the limited financial resources available to them. As a result, managers who were operating in this industry were only confronted with a pressure to meet the obligations of current operations, and in a best-case scenario to explore along the supply chain. For this reason, the third sector was excluded from the study. The rationale for excluding the third sector was driven by the need to recruit participants who can provide the richest information, have the knowledge on the phenomenon under investigation, and can reflect and articulate (see Moser and Korstjens, 2018). This conclusion aligns with a Scottish government report on charities in the United Kingdom which suggests that non-profit organisations are forced to involve into "cut-throat" competition with each other over funding and beneficiaries, and due to the limited funding opportunities available, charities are unable to engage in early intervention work or long- term planning (Cooney, 2016).

- **Interview Questions**

To collect data for the pilot study, participants were first presented with a description of the purpose and the nature of the research. The researcher was open in terms of interview structure. The interviews were semi-structured to enable new concepts associated with ambidexterity to emerge and then be captured by the researcher before being extensively involved in the main study. Piloting allowed some problems associated with the number, the contents, and the types of interview questions to surface. For instance, it was noticed that some questions needed to be either refined in accordance with the theoretical focus of the inquiry or removed where they did not add value to the study. Also, because questions were derived from theoretical concepts, their perceptions by respondents varied. Therefore, there was a need to alter some concepts and phrases to make them more understandable by the interviewees and to maintain an adequate level of

internal validity. For example, innovation, adaptability, and flexibility were used interchangeably with exploration, whereas efficiency and alignment were used interchangeably with exploitation. Appendix (2) shows the interview protocol the researcher developed and aimed at answering the research questions.

- **Data Analysis**

At the initial stages, the researcher attempted to cover a broad array of sub-themes (elements) associated with the predefined themes adopted in this study (discipline, stretch, support, and trust), but after the piloting, the researcher became aware that this would be at the expense of data richness. As discussed earlier, this study is exploratory in nature. Therefore, to ensure capturing rich data on ambidexterity from participants, the researcher focused only on a limited number of elements.

Furthermore, the pilot study revealed that the four predefined themes under investigation are interrelated and interdependent. For instance, an element can act as an enabler to another. The findings of this study confirm previous research conducted by Gibson and Birkinshaw (2004) which suggests that when organisations trust their employees, employees tend to stretch their work and look for opportunities beyond their task line, and also aligns with Haj Youssef and Christodoulou (2017) who empirically find that uncertainty tolerance has a positive and significant effect on managerial discretion. This interdependency caused difficulties in identifying four distinct constructs of organisational context using the four predefined element/themes (discipline, stretch, support, and trust), which in turn resulted in some data associated with organisational context to fit in more than one theme (i.e., a single behaviour or action to be classified under more than one element/theme). To overcome this issue, the researcher sought to maintain definition consistency for each element/theme throughout the main study, as well as to focus on specific contents of each element/theme. Regarding coding technique, the ‘lumping’ technique was found to be more compatible with the thematic analysis adopted in this study, whereas splitting coding was found to overwhelm the analysis, and therefore was excluded from the main study.

Regarding coding technique, there were two options suggested by Saladana (2016) and employed in the pilot study, to code as a “lumper” or as a “splitter”. Consistent with Saladana (2016), splitting coding overwhelmed the researcher and the analysis because it generated a large volume of codes which made it difficult to categorise these codes into themes. Therefore, it was decided

to employ only the lumping technique in the main study. Lumping aligns with the thematic analysis approach adopted in this study which allows for analysing narratives and stories of those who experienced them (Sparker, 2005).

Lastly, the pilot study revealed that what matters most in this type of study is the number of sources for an event (element); that is, the higher the number of sources associated with a specific element the more that element was distributed amongst participants. This helped the researcher to prioritise elements and sub-elements of organisational context from most impactful to least impactful.

Appendix (2)

Interview Protocol

Introductory Questions

1. How old are you?
2. What is your position? How long have you been working in this specific position? How long have you been working in this organisation?
3. Tell me about the challenges the organisation faces.
   Hint: challenges associated with the environment in which the organisation operates, i.e., disruption innovation, competition, change in customers' demands and preferences...etc.

Exploitation, Exploration, and Individual Ambidexterity- Oriented Questions

1. What is your typical day at work like (i.e., dedicated to operational activities/ administratively driven)?
   - Do you usually involve in operational activities or exploration/experimentation activities? Or mix-match? If mix- match, provide a percentage please, i.e., 30% operational activities and 70% exploration/experimentation activities.

2. If mix-match, how do you manage the conflicting demands of operational activities and exploration activities? In other words, how do you manage to switch between the needs of a different mindset?
   - Hint: Prioritization, delegation, procrastination (Why? Under which circumstances?
3. When problems arise, do you tend to be inclined to established approaches or experimentation and improvisation (searching for new possibilities)? Why? Explain.
   - Is there room for creativity and thinking out of the box in your position? What are the boundaries?
   - What hinders the explorative nature in you?

Organisational Context- Oriented Questions

A. Discipline

4. How is individual performance evaluated in the organisation? How clear are performance standards to you?
5. In your opinion, does the evaluation of the performance approach adopted in the organisation encourage hard work? Does it encourage initiatives, creativity and thinking out of the box? Explain
   - How are rewards and incentives evaluated and distributed? In your opinion, does this approach encourage creativity, experimentation and thinking out of the box? Explain?
6. Is there consistency in the application of rewards? Elaborate, please.
7. Are you well compensated?

8. Tell me about the quality of performance feedback. To what extent does the management encourage employees to use their appraisal feedback to improve their performance? Do you usually take those feedback into consideration? Why? Why not?
9. To what extent does the management hold people accountable for their performance? (Taking ownership of own performance and actions and decisions: taking responsibility to an outcome and this does not only imply blaming).

B. Stretch

10. Tell me about tasks assigned to you. Are they fixed or evolving over time? Do you prefer them to be fixed or to evolve over time? Why?
11. Does the management issue creative challenges to the people here instead of their narrowly defined task? Does the management make a point of stretching people here? ---- Does the management allow you to set higher, more challenging, and ambitious goals (raise the bar)? How?
12. Does the management enable you to give a personal meaning to the way you do things here?

C. Support

13. What kind of developments and training are available here (i.e., task-oriented vs. personal development)? Are they enough/effective in addressing the challenges the organisation is facing? Why? Why not?

14. When you are assigned to a specific task, do you have to follow specific procedures (i.e., specific guidelines) or thinking out of the box and experimentations (autonomy to act) are encouraged by the management? What are the boundaries?

15. Generally speaking, do you feel that you are encouraged to experiment? To what extent are you encouraged to take initiatives, push boundaries? Provide example
    - Do you feel that the management style here encourages you to challenge current traditions/the status quo? Provide example

16. Have you ever been in a situation that required you to think out of the box, search for new possibilities or even outside the existing configuration and task line and resulted in changing the way you are doing things? Tell me about it? What made you think this way? What have you learned? What were the consequences? Did you regret it?

D. Trust

17. How easy is it to make decisions here? Do you have to grant your supervisor's approval prior to making any decision? When and why?
18. To what extent do you involve in decisions that are affecting your work?
19. How failure in achieving goals is perceived in the department? Are you allowed to make mistakes? Is it considered a learning opportunity? Is it something to be ashamed of? Are you afraid of making a well-intentioned failure?
20. How competent is the management team?

21. Is there fairness and equity in the business unit's decision processes? Explain with examples.
    - Does this impact your performance, creativity and/or motivation (i.e., walking the extra mile)?
22. How consistent are the messages delivered to you by the management? Explain with examples.
    - Is there any tension in top management's messages? Or even a conflict between their messages and their actions?
23. To what extent does the management base decisions on facts and analysis, not politics? Elaborate, please.

General Questions

1. In light of your overall experience, what aspects have you found most rewarding in this job, why?
2. Does the management give you the opportunity and encouragement to do the best work you are capable of? Does it help or hinder your capability to deal with evolving demand?
    - Do you feel that the organisational environment here (structure, processes, incentives) helps you or hinders you in dealing with the new demands in the market? Examples?
3. Are you pulling your weight? Why? Why not?
4. How would you describe the working atmosphere here?
   Hint: Comfortable, secure place, informal atmosphere, creative, rigid. Why?

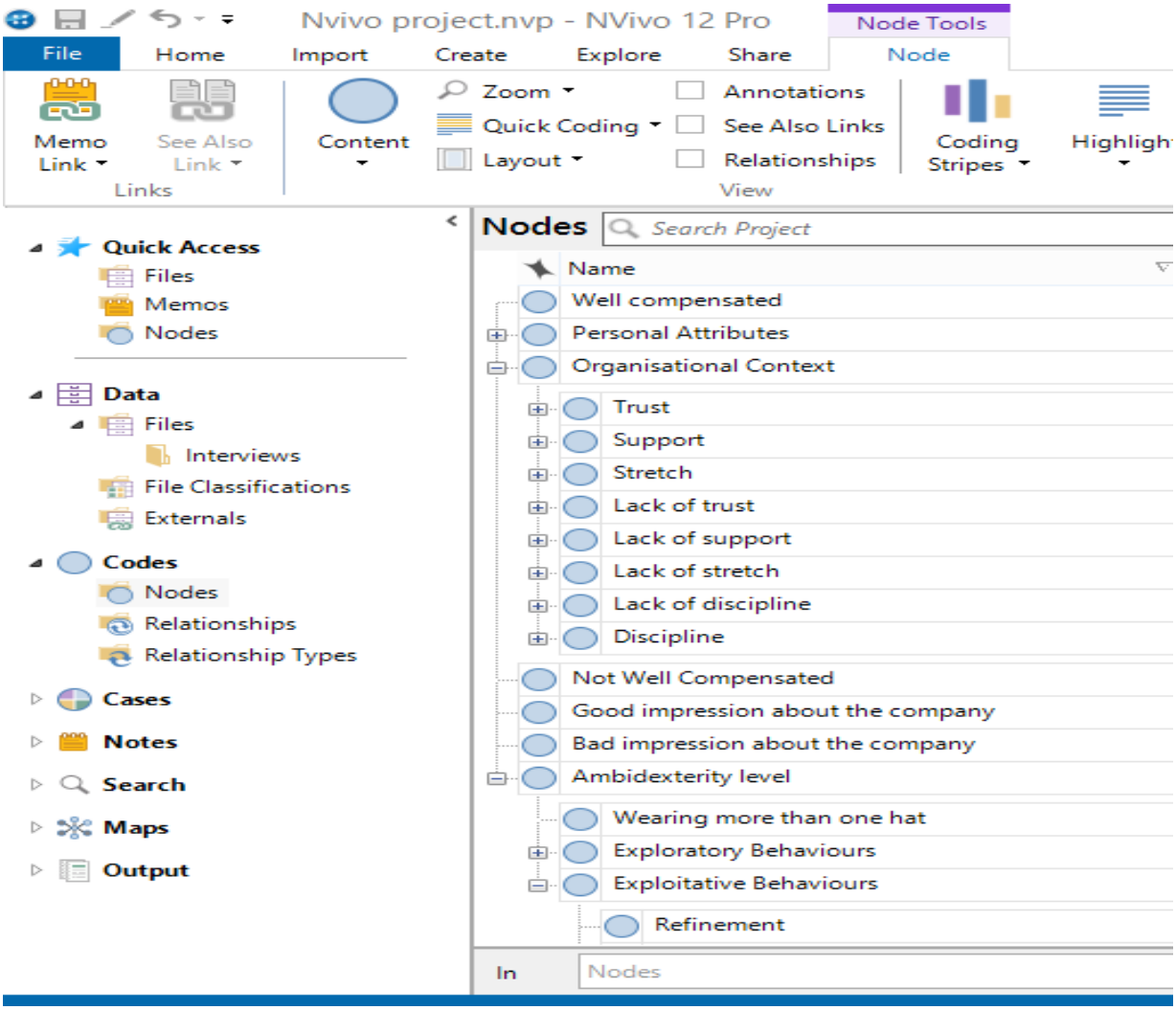
Appendix (3)

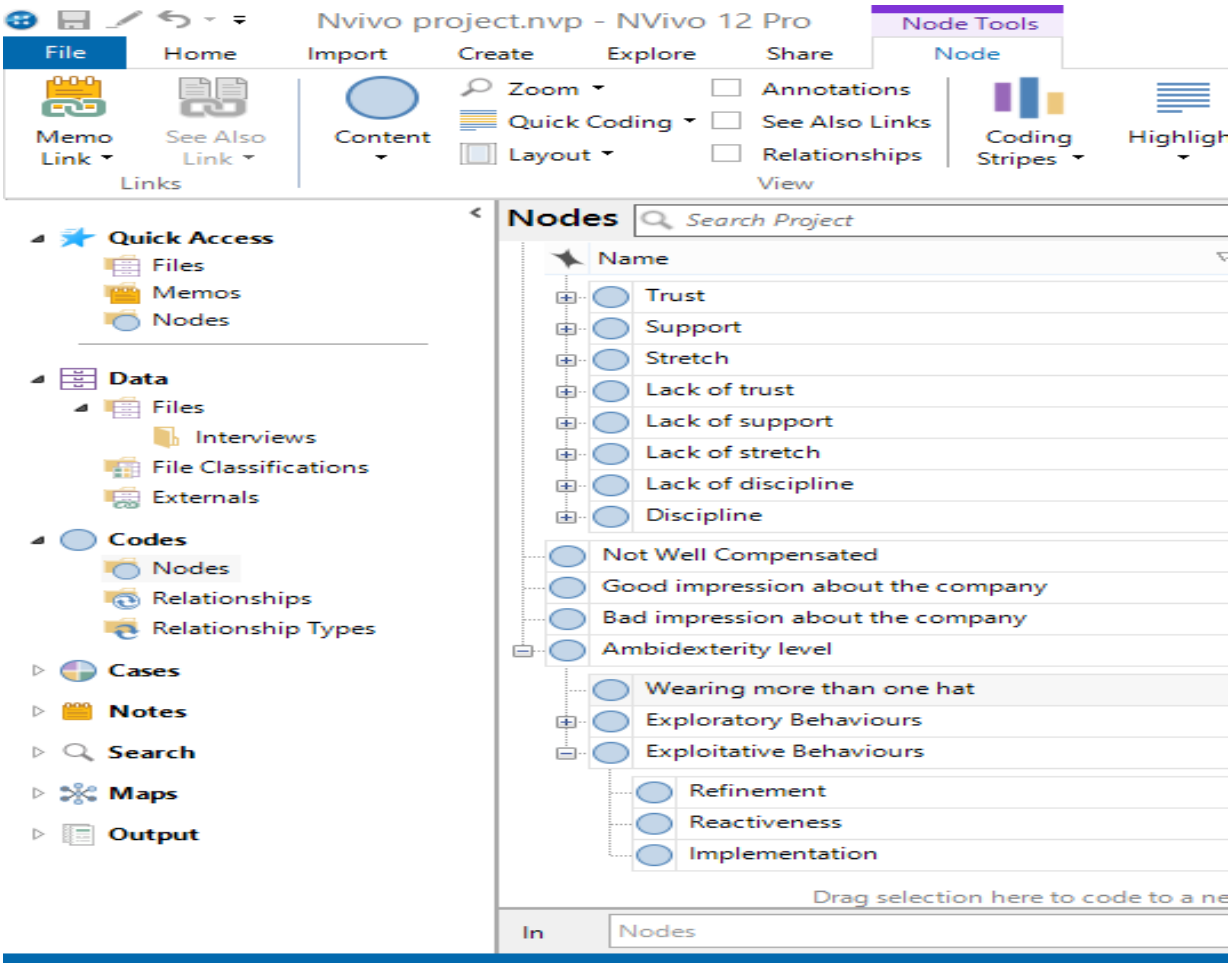
The cross-context analysis presents the overall coding tree of organisational context, managerial behaviour, and characteristics of ambidextrous managers.

Element	Contents		Sources	References
Discipline	Clear Performance Standards		30	48
	Availability of Feedback		32	37
	Incentives	Exploration oriented	4	7
		Exploitation oriented	25	29
	Consistency in the application of rewards/incentives		16	20
Stretch	Evolving Task		32	42
Support	Autonomy to Act		29	47
	Training	Technical Training	32	36
		Non-Technical Training (Exploration oriented)	2	2
Trust	High Tolerance for Early Failure		17	36
Exploitative Behaviour	Refinement		24	26
	Reactiveness		27	29
	Implementation		32	42
			Overall Sources= 32	**97**
Exploratory Behaviour	Forward Thinking/Proactiveness		23	35
	Driving Change		20	27
			Overall Sources=23	**62**
Well Compensated			21	23
Characteristics of Ambidextrous Managers	Multi-tasking/Wearing more than one hat		23	36
	Delegation		23	23

Appendix (4)

NVivo Coding Tree

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Trust
Support
Stretch
Lack of trust
Lack of support
Lack of stretch
Lack of discipline
Discipline
Not Well Compensated
Good impression about the company
Bad impression about the company
Ambidexterity level
Wearing more than one hat
Exploratory Behaviours
Exploitative Behaviours
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