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University of Pretoria

Exploring the paradox of managerial ambidexterity in exploitation versus exploration.

Ramie Booth

Student number: 16393407

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ABSTRACT

To remain competitive organisations, need to exploit their existing capabilities and knowledge bases to ensure efficiency. But, in dynamic and competitive environments the firm must also innovate, exploring new capabilities and knowledge to renew. The survival of the firm, in the long term, depends on its ability to achieve ambidexterity, to successfully achieve both activities; reconciling the dilemma of exploitation (efficiency) and exploration (innovation). Individual organisational actors are increasingly recognised as a significant source of organisational ambidexterity. Despite its importance managerial ambidexterity remains a fragmented and incompletely understood phenomenon in academic literature. This study examined how the individual manager can best resolve the dilemma of exploitation versus exploration; namely, should it be a balance through trade-off or a paradoxical combination.

A qualitative, exploratory research study was conducted to examine the lived experience of the individual managers' quandary of balancing exploitation and exploration. Eighteen semi-structured, in-depth face to face interviews were conducted with Senior and Middle Managers. Participants were from two Multi-National Enterprises known for excelling in both exploitation and exploration globally and operating in the industrials sector, within the South African context. Each interview was analysed using combined inductive and deductive thematic content and frequency analysis techniques.

The research identifies a holistic view of the multi-level factors that enable and inhibit individual managers ability to perform exploitation and exploration separately and as combined activities. A process of dynamic sense making is identified with managers resolving the tension of simultaneous demands for exploitation and exploration through dynamic self-adjustment. Managers use a combination of synthesis, temporal cycling and spatial delegation mechanisms to achieve managerial ambidexterity. The core competencies identified as necessary namely, problem solving leading to change management, team leadership, influence and persuasion and emotional intelligence are key elements in the process model.

KEY WORDS

Dilemma; Paradox; Exploration; Exploitation; Managerial Ambidexterity

DECLARATION

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Masters of Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted previously for any other university. I further declare I have obtained the necessary authorisation and consent to conduct this research.

Signed:

Date: 6th Nov 2017

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1.1   Introduction

In dynamic contexts organisations face considerable challenges not only to respond to, but lead environmental change through innovation (Brozovic, 2016) while doing so with ever increasing operational efficiency (Turner, Swart, & Maylor, 2013). The global business environment in which multinational enterprises (MNE) are operating is becoming increasingly volatile, turbulent and complex. In such contexts businesses are facing growing plurality and accelerating change (Smith, Erez, Jarvenpaa, Lewis, & Tracey, 2017). This is particularly true for MNE operating the in the South African context.

Conventional wisdom has it that a firm's success and indeed long-term survival requires exploitation of current capabilities or knowledge to ensure efficiency and refinement; and exploration of new capabilities or knowledge to ensure innovation, renewal and long term growth (Lewis, Andriopoulos, & Smith, 2014; March, 1991; Smith & Tushman, 2005). In the short-term benefit can be attained through exploitation but long-term performance may be sacrificed if the firm fails to adapt to changing environments (Junni, Sarala, Taras, & Tarba, 2013).

Exploitation relates to efficiency through improved execution, refinement and variance reduction by creating reliability in experience and hence increased productivity (Good & Michel, 2013; March, 1991; Turner et al., 2013). It signifies evolutionary change and incremental product innovation (Papachroni, Heracleous, & Paroutis, 2015). Exploitation is associated with mechanistic structures, tightly coupled systems, control and bureaucracy (He & Wong, 2004). Over focus on exploitation at the expense of exploration and the firm can suffer a 'success trap' failing to adapt to changing conditions (Junni et al., 2013).   Whereas, exploration relates to innovation through search, experimentation, risk-taking, flexibility and variance creation (March, 1991; Turner et al., 2013). It signifies revolutionary change and radical, discontinuous product innovation (Papachroni et al., 2015). Exploration is related with organic structures, loosely coupled systems, and autonomy (He & Wong, 2004). Over focus on exploration at the expense of exploitation and the firm can suffer a 'failure trap' failing to exploit new ideas and innovations fully (Junni et al., 2013).

The seemingly incompatible nature of exploitative (efficiency) and exploratory (innovation) activities (March, 1991) creates tensions and presents a management dilemma.

1.2 What is Known

Early literature suggests to solve the exploitation-exploration dilemma trade-offs are unsurmountable (March, 1991). The competing demands for resources and the fundamentally conflicting mind-sets and routines needed for each activity (March, 1991) necessitate either/or choices for management. An alternative paradoxical perspective is increasingly prevalent in the literature. Naidoo & Sutherland (2016) argue combination of seemingly contradictory strategic alternatives can provide firms differentiation in competitive environments. This supports Lewis et al., (2014) suggestion that resolving tensions requires creative, both/and solutions that facilitate agile decision making. Smith et al.,(2017) posit that theories of paradox offer promise to leaders in helping inform the seemingly messy, unexplainable and often irrational contemporary world.

Organisational ambidexterity, the ability of a firm to simultaneously exploit and explore, has emerged from the learning, innovation and strategic management literatures as a solution for reconciling the tensions and conflicting demands of exploitation and exploration (Raisch & Birkinshaw, 2008). Recently it has become a productive area of scholarly enquiry (Junni et al., 2013; O'Reilly & Tushman, 2013; Raisch & Birkinshaw, 2008; Taródy, 2016; Turner et al., 2013). Empirical studies, across numerous contexts, confirm generally positive associations between organisational ambidexterity and performance (Gibson & Birkinshaw, 2004). However, scholars warn of the dangers using single factors as proxy for performance. Measurement should be understood in terms of multiple contradictory objectives (Turner et al., 2013). In addition, the inconsistencies in how ambidexterity is measured in the literature (A*B, A+B or A-B) influences the relationship between ambidexterity and firm performance (Birkinshaw & Gupta, 2013).

Practically, the pursuit of ambidexterity has become an imperative for organisations seeking to improve performance and successfully deal with the opposing tensions of innovation and efficiency (Papachroni, Heracleous, & Paroutis, 2016). Despite intensive research, however, it remains unclear how ambidexterity can be best operationalised in practice (O'Reilly & Tushman, 2013).

Rooted in the notion that exploitation and exploration are opposing activities (March, 1991) the extant ambidexterity literature dealing with the operationalisation of ambidexterity presents alternative generic mechanisms (Turner et al., 2013). Structural ambidexterity advocates the structural, spatial separation of the two modes between exploitative and explorative business units (Tushman & O'Reilly, 1996). Temporal ambidexterity advocates the sequential or temporal separation of the two modes. Organisations alternate between long periods of exploitation and shorter periods of exploration through punctuated equilibrium and depending on contextual demands (Lavie, Stettner, & Tushman, 2010). An alternative mechanism, contextual ambidexterity, conceives ambidexterity as a behavioural capacity with individuals making judgments about the division of time between exploitation (alignment) and exploration (adaptability) (Gibson & Birkinshaw, 2004). The contextual ambidexterity mechanism accepts that balancing can take place within a single organisational unit. However, this is achieved not through the removal of tension but through temporal separation of activities at the individual level (Papachroni et al., 2015).

There is discourse in the literature about the nature of the relationship between the modes or poles of exploitation and exploration. The generic mechanisms conceptualise exploitation and exploration as two ends of a continuum and are either contradictory or independent poles (Junni et al., 2013; Turner et al., 2013). However, Farjoun (2010) presents an alternative duality view in which the tensions are interdependent and mutually enabling, also known as a paradox (Gielink, 2014). Papachroni et al. (2016) explain that viewing ambidexterity through a paradox lens enables academics and managers to move beyond the assumption of conflict to explore new ways in which exploitation and exploration can be accomplished simultaneously.

1.3   Research Gaps

The majority of ambidexterity research adopts the firm or business unit level analysis (Birkinshaw & Gupta, 2013; Nosella, Cantarello, & Filippini, 2012). Increasingly, scholars conceptualise organisational ambidexterity as a nested construct spanning organisational levels (Simsek, 2009; Turner et al., 2013). As such there are increasing calls for multiple-levels of analysis (Raisch & Birkinshaw, 2008; Raisch, Birkinshaw, Probst, & Tushman, 2009; Turner et al., 2013). A coherent understanding of the resources and specific micro-mechanisms needed across levels to enable ambidexterity is lacking (Turner et al., 2013).

There is increasing acceptance that individuals can perform exploitation and exploitation activities (Mom, Fourné, & Jansen, 2015; Mom, van den Bosch, & Volberda, 2009; Raisch & Birkinshaw, 2008). This is supported by growing evidence that individuals are a significant source of organisational ambidexterity (Gibson & Birkinshaw, 2004; Kauppila & Tempelaar, 2016; Raisch et al., 2009).

At the micro-level the capacity to perform two seemingly contradictory activities, individual ambidexterity, refers to "the individual-level cognitive ability to flexibly adapt within a dynamic context by appropriately shifting between exploration and exploitation" (Good & Michel, 2013, p. 437). A small but growing body of literature has started to unpack individual ambidexterity. Findings include external influencers including organisational culture and identity (Lavie et al., 2010; Wang & Rafiq, 2014); organisational strategy (Papachroni et al., 2016); a supervisors leadership (Kauppila & Tempelaar, 2016; Zacher & Rosing, 2015); knowledge flows (Mom et al., 2009); and networks (Rogan & Mors, 2014). Internal influencers include cognition (Miron-spektor, Gino, & Argote, 2011; Rogan & Mors, 2014; Smith & Tushman, 2005); cognitive flexibility (Good & Michel, 2013); organisational tenure (Mom et al., 2015); learning orientation (Kauppila & Tempelaar, 2016); emotional intelligence (Kao & Chen, 2016) and personality (Jasmand, Blazevic, & de Ruyter, 2012; Keller & Weibler, 2015). Current research is fragmented and a comprehensive model of factors influencing individual ambidexterity seems not to exist. In addition, no substantive consensus can be found regarding how individual managers best achieve the right balance or combination of exploitation and exploration activities.

From a paradox theory perspective Schad, Lewis, Raisch, & Smith (2016) highlight that extant paradox research has also emphasised collective approaches to paradox resolution with less attention on individual approaches. Examination of how individual managers see and ultimately resolve paradoxical tensions is important for theoretical and practical reasons. Theoretically, the bias towards collective approaches has led to oversimplification of the phenomena (Schad et al., 2016). Practically, recognition and resolution of paradoxical tensions is vital for managers seeking to improve organisational performance.

Studies that explore individual approaches to paradox focus on leaders and TMT (Knight & Paroutis, 2016; Smith, 2014; Smith & Tushman, 2005) with fewer studies focused on middle managers (Luscher & Lewis, 2008).

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1.4   Research Problem

Two broad conceptualisations of organisational ambidexterity are presented in the literature, namely as an optimal balance of exploitation and exploration or as a combination of high levels of both exploitation and exploration (Junni et al., 2013).

Managers balancing dilemma can be represented by the management continuum model (Gielink, 2014; Gilbert & Sutherland, 2013; Naidoo & Sutherland, 2016), Figure 1. Managers seek to balance appropriately the two extremes of the dilemma; exploitation (efficiency) and exploration (innovation). Gielink (2014, p. 5) explains "the closer to either end of the continuum the more mutually exclusive the adopted approach". This approach represents an either/or mind-set (Naidoo & Sutherland, 2016).

Figure 1: The Management Continuum Model (Adapted Naidoo & Sutherland, 2016)

Exploitation (efficiency)   Exploration (innovation)
Management Continuum

The alternative perspective is represented by the management dilemma model (Gielink, 2014; Gilbert & Sutherland, 2013; Naidoo & Sutherland, 2016), Figure 2. Managers seek an appropriate combination of exploitation (efficiency) and exploration (innovation) activities. The optimum balance being appropriate to the organisational context. This approach conversely represents a both/and mind set (Naidoo & Sutherland, 2016).

Figure 2: The Management Dilemma Model (Adapted Naidoo & Sutherland, 2016)

High

| High Exploitation + Low Exploration | High Exploitation + High Exploration |

Exploitation (efficiency)

| Low Exploitation + Low Exploration | Low Exploitation + High Exploration |

Low   Exploration (innovation)   High
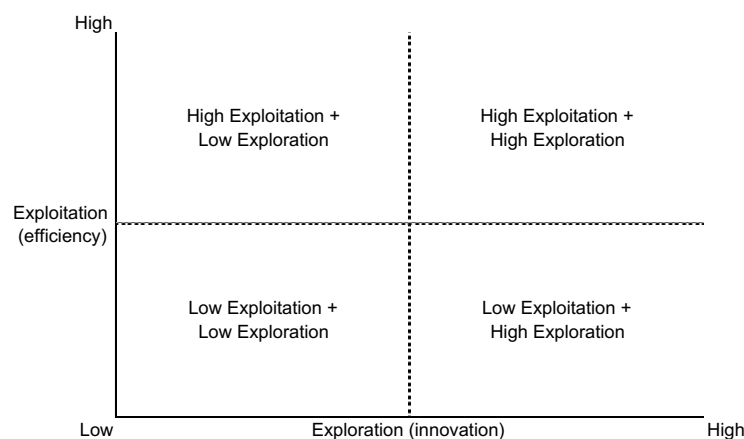
The management dilemma is deciding which approach is most suitable within the firm's context. The literature, with limited investigation into how individual managers see and resolve the exploitation and exploration dilemma does not provide consensus on appropriate solutions.

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1.5   Purpose of the Study

The proposed study intends to address the duality issue of exploitation and exploration. Seeking to build on research conducted in the South African context by Gielink (2014) the study adopts micro-level analysis to draw attention to the underexplored individual dimensions of ambidexterity. The scope of the research covers two layers of managers (executive senior managers, and middle managers) employed in multinational organisations (MNE) operating an ambidextrous strategy in the South African context.

It is the purpose of the research to:

1. Gain a deep understanding of how managers across organisational levels view and ultimately resolve simultaneous demands for explorative and exploitative behaviours.
2. Identify enabling and inhibiting factors influencing managers' ability to exploit, explore and balance explorative and exploitative activities (the ability to achieve individual managerial ambidexterity).

1.6   Objectives of the Research

The objective of the research is to provide a management framework intended as a practical guide for senior managers aiming to facilitate ambidexterity through behavioural change to become more innovative and efficient. The implications are envisioned to span coordination mechanisms such as organisational design and context, recruitment decision, reward management and managerial development programmes.

From a theoretical perspective, the lack of micro-level analysis is limiting understanding of the multi-level ambidexterity concept, and this represents an inadequacy within existing theory. This study is indented to contribute to the ambidexterity literature providing a better understanding of ambidexterity at the individual manager level and paradox literature advancement by giving insights into how individual managers resolve exploitation and exploration dilemmas.

Chapter two presents a review of the literature on exploitation and exploration, dilemma and paradox theory, organisational ambidexterity, specifically the mechanisms for achieving ambidexterity and the role of managers in achieving ambidexterity.   It concludes with an overview of the current Individual ambidexterity literature.

CHAPTER 2: LITERATURE REVIEW

2.1   Introduction

In the following chapter the core concepts and theoretical background will be reviewed and discussed. The following themes were identified:

- Exploitation
- Exploration
- Dilemma Resolution – Trade off and Paradox
- Organisational Ambidexterity
- Managerial Ambidexterity

2.2   The Exploitation-Exploration Dilemma

"The basic problem confronting an organization is to engage in sufficient exploitation to ensure its current viability and, at the same time, devote enough energy to exploration to ensure its future viability" (March, 1991, p.105). The difficulty for organisations in managing this adaptive challenge is an inherent bias for the predictability and short-term success of exploitation versus the unavoidable risks and uncertainly of success presented by exploration (O'Reilly & Tushman, 2013). But the organisation that focuses exclusively on exploitation risks failure from obsolescence (Taródy, 2016).

2.2.1 Exploitation

Exploitation relates to efficiency through improved execution, refinement and variance reduction by creating reliability in experience and hence improved productivity (Good & Michel, 2013; March, 1991; Turner et al., 2013). It requires convergent thinking, generative learning and continuous improvement by focusing on existing knowledge and alignment to existing routines (Andriopoulos & Lewis, 2009; Taródy, 2016). It relies on repetitive combinative mechanisms of learning and improves the ability to crystallise cause-effect relationships within a knowledge domain (Kang & Snell, 2009).

Exploitation signifies evolutionary change and incremental product innovation (Papachroni et al., 2015). He & Wong (2004) explain exploitation is associated with structures which are mechanistic and tightly coupled systems, path dependence, routinisation, control and bureaucracy, and technologies and markets which are steady. Firms cannot compete purely on efficiency enhancements for extended periods of time due to rivalry of firms and competitive advantage erosion (Tse, 2013). An over focus on

exploitation can lead the firm to suffer a 'success trap' failing to adapt to changing conditions (Junni et al., 2013).

At the micro-level when exploiting individuals rely on previous experience, existing routines and involves doing things as they have always been done or incrementally improving well-learned actions (Rosing & Zacher, 2017). Deeper knowledge, leading to heightened reliability and incremental improvement is amplified by exploitative learning (Kauppila & Tempelaar, 2016). Individuals who exploit at the expense of exploration may experience a 'routine trap' lacking the flexibility and ability to adapt and create (Rosing & Zacher, 2017).

2.2.2 Exploration

Exploration relates to innovation through search, experimentation, risk-taking, flexibility and variance creation (March, 1991; Turner et al., 2013). It requires divergent thinking, adaptive learning and discovery of new knowledge and discontinuous change (Papachroni et al., 2015; Taródy, 2016).   It requires the establishment of new combinatory mechanisms and limits clarification of cause-effect relationships (Kang & Snell, 2009).

Exploration signifies revolutionary change and radical, discontinuous product innovation (Papachroni et al., 2015). He & Wong (2004) explain exploration is associated with structures which are organic and loosely coupled systems, path breaking, improvisation, autonomy and chaos, and emerging technologies and markets. Over focus on exploration and the firm can suffer a 'failure trap' failing to exploit new ideas and innovations fully (Junni et al., 2013).

At the micro-level when exploring individuals deviate from routines, try new activities and do not rely on established knowledge or ways of doing things (Rosing & Zacher, 2017). Explorative learning increases the breadth of knowledge, thus creating prospects for radical changes (Kauppila & Tempelaar, 2016). Individuals who explore at the expense of exploitation may experience a 'novelty trap' as their highly original ideas fail to be realised (Rosing & Zacher, 2017).

2.3   Dualities, Dilemmas and Paradox

Contemporary business environments are characterised by volatile and rapidly changing landscapes (Putnam, Fairhurst, & Banghart, 2016). Such contexts pose increasing

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complexity in the practice of organising (Smith et al., 2017) giving rise to organisations rife with contradiction and tensions (Lewis et al., 2014). Under these conditions managers are often presented with decisions that present as 'horns of a dilemma' (Naidoo & Sutherland, 2016).

Extant literature on organisational dilemmas, dualities, and paradoxes often confuse the key terms and substitute them for each other (Putnam et al., 2016). Therefore, a summary of definitions is provided in Table 1 for clarification.

Table 1: Definitions of Concepts

Concept	Definition	Scholar
Dilemma	Dilemmas refer to either-or choices in which one alternative must be selected among mutually attractive or unattractive options.	Putnam et al. (2016)
Dualism	Opposite poles, dichotomies, binary relationships; Either-or relationship	Farjoun (2010); Papachroni et al. (2015)
Duality	Duality resembles dualism in that it retains the idea of two essential elements, but it views them as interdependent, rather than separate and opposed; form a both-and relationship; impossible to describe one element without the other	Farjoun (2010); Putnam et al. (2016)
Paradox	Contradictory yet interrelated elements that exist simultaneously and persist over time; Seem logical when viewed alone but irrational when combined together; Duality rather than Dualism	Smith & Lewis (2011); Papachroni et al. (2015)
Tension	Stress, anxiety, discomfort, or tightness in making choices in organisational situations.	Putnam et al. (2016)
Contradiction	Bipolar opposites that are mutually exclusive and interdependent such that the opposites define and potentially negate each other; Contradiction is often treated as opposite sides of the same coin, such that the more actors move toward one pole, the more they feel pulled toward the other.	Putnam et al. (2016); Smith & Lewis (2011)

The main differences between duality and paradox is that duality is used to describe concepts (Farjoun, 2010) and duality scholars place less stress on understanding contradictions, inconsistencies and conflicts than paradox scholars (Schad et al., 2016).

A dilemma involves either-or choices in which one alternative must be selected among mutually attractive or unattractive options (Putnam et al., 2016). Solving a dilemma involves weighing up the pros and cons of each alternative (Smith & Lewis, 2011). These pros and cons create contradictions and resulting tensions which can be managed as

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trade-off or as a paradox. Tensions arise as organisational actors encounter dilemmas (Putnam et al., 2016). Senior leaders experience the persistent conflict developing from strategic paradoxes, while lower level managers feel complexity in their everyday work practices, social relationships and individual identities (Schad et al., 2016). Tensions are feeling states which result from dealing with contradictions which creates frustration, blockage, uncertainty, and even paralysis in individuals (Putnam et al., 2016; Smith & Lewis, 2011).

The exploitation and exploration dilemma (Birkinshaw & Gupta, 2013) with the rising tensions between seemingly opposing activities suggests numerous contradictions summarised in Table 2. Tensions include efficiency and flexibility, alignment and adaptability, stability and change, and global integration and local responsiveness (Farjoun, 2010; Gibson & Birkinshaw, 2004; Kortmann, 2014; Papachroni et al., 2016; Taródy, 2016).

Table 2: Contradictions of the Exploitation-Exploration Dilemma (Adapted from Taródy, 2016)

Exploitation	Exploration
Efficiency	Flexibility
Static	Dynamic
Stability	Change
Alignment	Adaptability
Global integration	Local Responsiveness

2.3.1 Trade off and Contingency Theory

A contingency theory lens informs a trade-off logic prescribing either/or choices contingent on environmental factors (Schad et al., 2016). In this conceptualisation organisations and actors must manage the tensions and conflicts that develop from the demands for both activities to find the appropriate balance between the two. Such an approach addresses tensions through decisions about the circumstances which require an entity to choose A or B (Smith et al., 2017). Through this lens tensions are incompatible and mutually exclusive requiring trade-off, sequencing or separation of opposing demands to resolve tension (Smith et al., 2017). Such contingency theories stress that an organisation's rational practices and intolerance for exceptions work well for predictable and specialised tasks in stable environments; conversely organic

structures and practices may be required for dynamic environments and non-routine tasks (Farjoun, 2010).

Early research regarded exploitation and exploration as opposing activities with trade-offs as insurmountable (March, 1991) viewing exploitation and exploration as extremes of a continuum. The tensions are said to be insurmountable due to competition for finite resources, the radical difference in mind-sets and routines required for each activity (March, 1991; Tushman & O'Reilly, 1996) and the self-reinforcing nature of both activities (March, 1991).

At the firm-level of analysis imbalance compromises longevity (O'Reilly & Tushman, 2007). If an organisation only exploit existing knowledge they risk obsolescence; If organisations only explore new knowledge they risk inefficiency (Taródy, 2016).

2.3.2 Paradox Theory

The meta-theory of paradox (Lewis & Smith, 2014) offer potential frameworks for leaders to respond to mounting and dynamic contradictions in everyday decisions and activities within organisations. Smith & Lewis (2011) posit that as the complexities of contemporary business intensify organisations will find themselves continuously balancing and re-balancing tensions, a state they name dynamic equilibrium.

Defined as "Contradictory yet interrelated elements that exist and persist over time. Such elements seem logical when considered in isolation, but irrational, inconsistent, even absurd, when juxtaposed." (Lewis et al., 2014, p. 61).   One element actually informs and defines the other in a dynamic and constantly shifting relationship with elements tied together by external mutuality (Schad et al., 2016). Studies suggest that recognising and embracing paradoxes can result in corporate success (Tse, 2013) since, collectively, paradox and related terms move beyond trade-offs, and solving dilemmas by splitting and choosing.

Recent research within a South African context by Gielink (2014) supports an increasingly popular alternative conceptualisation of exploitation and exploration activities as interdependent. Rather than competing or independent poles exploitation and exploration activities are synergistic and interwoven (Andriopoulos & Lewis, 2009). Papachroni et al. (2015) argue that viewing exploration and exploitation not as opposing activities but as dynamically interrelated or complementary, enables ambidextrous

concepts beyond structural or temporal separation towards synthesis or transcendence. This paradoxical approach seeks engagement in both competing demands simultaneously rather than achieving a balance or exclusive focus (Lewis et al., 2014). In the literature the poles of a dilemma are viewed as complementary (Gibson & Birkinshaw, 2004) or as mutually defining (Farjoun, 2010; Smith & Lewis, 2011). This distinction in conceptualisation of the poles is informed in the nuance between the paradoxical perspective and the dialectical perspective. While the paradox perspective focuses on the coexistence and ongoing management of tensions between opposite elements, the dialectical perspective views these same tensions as transformed through conflict (Hargrave & Van de Ven, 2017).

2.3.3 Paradox Resolution

It has been argued that the dynamic, constantly shifting yet persisting relationship between poles of a paradoxical dilemma demands of management a dynamic, ongoing process of 'coping with' or 'working through' paradox as opposed to a conventional approach of control and solution (Schad et al., 2016). Table 3 below provides a summary of some of the mechanisms extant literature suggest are used by senior leadership on behalf of a collective or the individual manager in paradox resolution. These conceptualisations reveal 'either-or' and 'both-and' perspectives of dilemma resolution.

Table 3: How Paradox is Addressed by Senior Leadership and Individual Managers (adapted from Schad et al. (2016) and Putnam et al. (2016))

Paradox Resolution	Type	Scholar
Defensiveness - Discomfort	Either/or	Schad et al. (2016)
Spatial / Structural separation	Either/or	Smith & Tushman (2005); Lavie et al. (2010)
Temporal separation	Either/or	Lavie et al. (2010)
Acceptance and 'working through'	Both/and	Lushcer & Lewis (2008)
Differentiation and Integration	Both/and	Andriopoulos & Lewis (2009); Smith (2014); Smith & Tushman (2005)
Dynamic Decision Making (Oscillating)	Both/and	Smith (2014)
Paradoxical thinking / sense-making	Both/and	Lushcer & Lewis (2008); Miron-spektor et al. (2011)
Synthesis / integration	Both/and	Schad et al. (2016)

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Either/or approaches treat contradictory poles as distinct and independent with individuals' reactions being (1) selection of one pole (2) separation or segmentation of poles i.e temporal and spatial ambidexterity and (3) Defensiveness, includes reactions that individuals use to deny or withdraw from the existence of contractions (Putnam et al., 2016). Both/and approaches treat contradictory poles as inseparable and interdependent (Putnam et al., 2016). In one such approach Luscher & Lewis (2008) propose a five-stage collaborative process for sense-making and 'working through' paradox. Represented in Figure 3.

***Figure 3: A Collaborative Process of Working Through Paradox (Source:* Luscher & Lewis, 2008)**
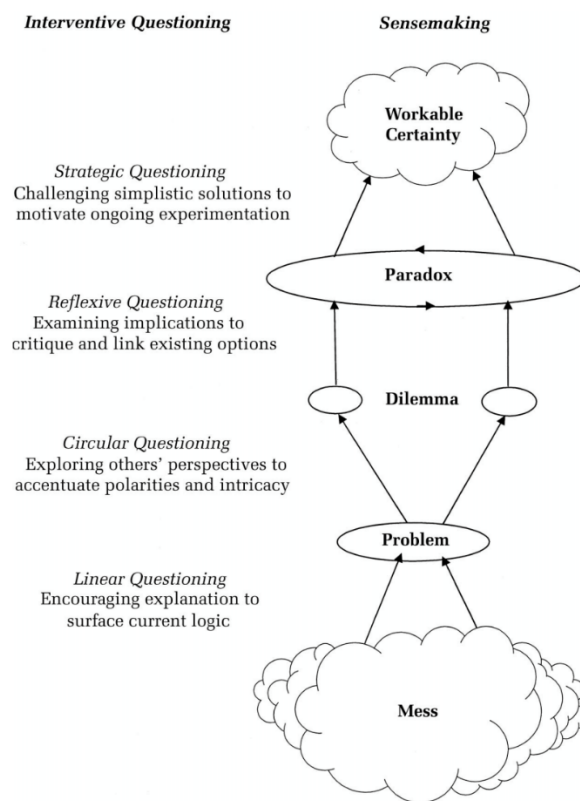
Driven by 'interventive questioning' the process challenges the manager to disaggregate the paradoxical issue into its intrinsic characteristics through alternative framing. The process guides the manager from mess, which denotes the fluid and unclear issue, through to problem definition and dilemma analysis into paradox analysis where the manager reframes moving from an either/or mind-set to a both/and mind-set. The process enables new understandings of the contradictions at play as opposed to solving the paradox. Alternatively, Smith (2014) found that top management teams effectively manage both/and exploitation and exploration over time utilising a combination of differentiating and integrating through dynamic decision-making, oscillating between

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modes. Differentiating involves polar separation to magnify differences while integrating involves emphasising the connections between poles to accentuate synergies (Schad et al., 2016).

2.4   Organisational Ambidexterity

Organisational Ambidexterity refers to the ability of an organisation to efficiently take advantage of existing market opportunities while creating and innovating to meet the challenges of future markets (Duncan, 1976; Patel, Messersmith, & Lepak, 2013).

The tension between seemingly opposing activities of the exploitative and exploratory activities and self-reinforcing nature (March, 1991) suggests a conflict in doing both well (Good & Michel, 2013). In his seminal article, Duncan (1976) introduced the concept of the ambidextrous organisation suggesting balancing "dual structures" to stimulate innovation. Birkinshaw and Gupta, (2013) therefore suggest that organisations have to seek to achieve some form of ambidexterity to manage the tensions and contradictions between the two learning activities. Ambidexterity is dependent on the organisations ability to reconcile the tensions from the conflicting demands of exploitation and exploration activities as manifested in the task environment (Raisch & Birkinshaw, 2008).

Organisational ambidexterity theory draws from innovation, organisational learning, strategic management, leadership theory and organisational design disciplines (Raisch & Birkinshaw, 2008). Consequently, scholars from these fields define the dualities of exploitation and exploration from different perspectives as summarised in table 4.

Table 4: Exploitation and Exploration Definitions by Perspective

Perspective	Scholar	Exploitation	Exploration
Learning	Turner et al. 2013	Both use and refine existing knowledge	Creating new knowledge to overcome knowledge deficiencies or absences
Innovation	Tushman & O'Reilly, 1996	Incremental Innovation: aim at improving existing product-market positions	Discontinuous innovation: aim at entering new product-market domains
Strategic	Raisch et al., 2009	Existing capabilities and competencies	New capabilities and competencies

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From a strategic perspective "…ambidextrous organizations that are capable of simultaneously exploiting existing competencies and exploring new opportunities" (Raisch et al., 2009, p. 685). From an innovation perspective it is "…a firm's ability to simultaneously peruse both incremental and discontinuous innovation." (Tushman & O'Reilly, 1996, p. 24). While Turner et al. (2013, p. 320) define ambidexterity from a learning perspective as "the ability to both use and refine existing knowledge (exploitation) while also creating new knowledge to overcome knowledge deficiencies or absences identified within the execution of the work (exploration).". This ability to exploit and explore represents the fundamental components of organisational learning (Bonesso, Gerli, & Scapolan, 2014).

Empirical studies provide support for the tenet that ambidexterity is an antecedent of organisational innovation and enhances a firm's performance and longevity (Gibson & Birkinshaw, 2004; Junni et al., 2013; Raisch & Birkinshaw, 2008; Rosing & Zacher, 2017). However, some empirical studies reveal a mixed relationship with performance (Junni et al., 2013) leading to suggestions that success is not guaranteed and reasons for implementation within the context should be understood (Turner et al., 2013).

Ambidexterity is a complex organisational capability, not easily achieved but affording competitive advantage (Turner et al., 2013). Three generic mechanisms have been identified in the literature as alternative solutions to enable the firm to manage the tensions namely temporal, structural and contextual ambidexterity.   These are represented in Figure 4 along with a duality conceptualisation.

Figure 4: Ambidexterity Mechanisms Aligned to Duality Conceptualisation (Researchers Own Work)

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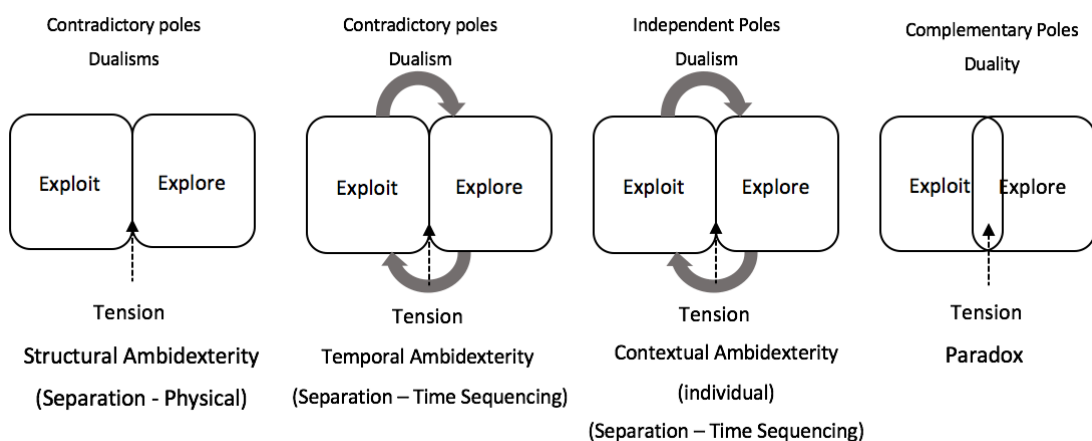
2.4.1 Structural Ambidexterity

Building on the separation proposition, first posited by Duncan (1976), O'Reilly and Tushman (2004) proposed structural ambidexterity, emphasising a spatial separation of activities, integrated at the senior management level.   Organisations manage tensions by implementing an organisational design with separate units, one focusing on exploitation and the other on exploration. Exploitative units are larger, centralised with tight processes while exploratory units are smaller, decentralised with loose processes (Papachroni et al., 2016). From the perspective of an individual structural separation implies individual specialisation in one of the two types of activities (Keller & Weibler, 2015).

Such dual structures are posited to achieve congruence between organisational structure and the demands of the task environment (Duncan, 1976) and help organisations maintain different competencies (Taródy, 2016). However, a common strategic intent, common values and targeted structural linkages are needed to ensure congruence and productive integration of efforts (Simsek, 2009).

The mechanism is not a simple structural solution and requires tailored and appropriate processes, competencies, structures, systems, incentives, processes and cultures for each unit (Simsek, 2009; Turner et al., 2013) thus creating coordination costs and complexity (Taródy, 2016). Structural separation can also create power imbalances (Schad et al., 2016).

Turner et al. (2013) challenge the over simplification of the structural mechanism observing that explorative R&D units incorporate exploitative administrative functions while exploitative manufacturing units trial novel techniques alongside established processes. Birkinshaw & Gupta (2013) support this claiming that there is no unit of the organisation that can focus on solely on exploitation or exploration. The dilemma is created elsewhere in the organisation, "We can resolve the ambidexterity "dilemma" at the organizational level, but we then create a new set of dilemmas at the operational unit level, with the unit managers having to decide for themselves what the relative balance should be between exploration and exploitation. This logic then gets repeated down through the various levels of hierarchy in the organization." (Birkinshaw & Gupta, 2013, p.294). This raises support for the importance of understanding ambidexterity at the micro-level and understanding how individual managers 'work through' paradox.

2.4.2 Temporal Ambidexterity

Temporal ambidexterity requires that exploit and explore activities are separated by time. The organisation achieving ambidexterity via temporal balancing by adapting and shifting sequentially or cycling from one mode to the other (Gupta, Smith, & Shalley, 2006; Tushman & O'Reilly, 1996). Early studies of exploitation and exploration advocate a shifting focus on each pole in response to changing demands for efficiency and then change or innovation (Schad et al., 2016). The proposition being organisational change involves extended periods of exploiting existing capabilities through incremental change which are disrupted by shorter periods of exploring radical change (Smith et al., 2017). The organisational structure shifts from mechanistic, focusing on centralisation, to organic, allowing decentralisation as organisations shift from exploitation to exploration (Papachroni et al., 2016).

This mode conceptualises exploitation and exploration as a continuum with one enacted in preference to the other (Turner & Lee-Kelley, 2012). In executing this mechanism exploitation and exploration activities are not co-existent and the result a punctuated equilibrium model of ambidexterity (Smith & Lewis, 2011). This model implies acceptance of paradoxical tensions in the long term while finding synergies or providing oscillating support between competing demands (Schad et al., 2016). Critics argue applicability may be rare as they observe it does not reconcile with the complexity of real organisations (Turner et al., 2013) while others highlight considerable transition costs (Simsek, 2009).

2.1.1 Contextual Ambidexterity

Gibson and Birkinshaw (2004) present a mechanism that conceives of ambidexterity as a behavioural capacity in which business unit's organisational context and culture provides the necessary antecedents (Taródy, 2016; Turner et al., 2013). The concept challenges the structural separation approach, advancing that ambidexterity is best achieved "by building a set of processes or systems that enable and encourage individuals to make their own judgments about how to divide their time between conflicting demands for alignment and adaptability" (Gibson & Birkinshaw, 2004, p. 210). Contextual ambidexterity is best described as is a multi-level construct with organisational context the reason and individual behaviour the effect (Gibson & Birkinshaw, 2004).

This mechanism highlights the need for managers to create the appropriate context, motivated by the organisation.

Gibson & Birkinshaw (2004) identified the role of the leader in creating supportive organisational context namely the performance management context, a combination of discipline and stretch, and the social context, a combination of support and trust. Kang & Snell (2009) explain that contextual ambidexterity inextricably tied to a firm's efforts to manage human resources. Specifically, in pursuit of behavioural forms of ambidexterity, organisations need to put in place practices that develop resource flexibility and behavioural choices in their employees (Patel et al., 2013). Individual or group work design is also central to contextual ambidexterity (Parker, 2014).

Contextual ambidexterity mechanism although conceptualising the poles of exploitation and exploration as independent in reality proposes a type of temporal separation of activities at the individual level (Papachroni et al., 2016).

The mechanics identified have been presented in the literature as alternatives, however there is evidence that organisations use a blend of solutions (Raisch & Birkinshaw, 2008). Scholars are calling for multi-level research which explores the closely related leadership, structural and contextual (behavioural) solutions (O'Reilly & Tushman, 2013; Taródy, 2016; Turner et al., 2013).

2.5   Multi-level Analysis

Ambidexterity literature concerned with multi-level analysis and the process of ambidexterity has identified resources needed to operationalise ambidexterity through consideration of organisational knowledge assets (Turner et al., 2013). It is posited that these assets exist at an organisational level (organisational capital), within social units or systems (social capital) and embodied within individuals (human capital) (Turner et al., 2013).

Jansen, Kostopoulos, Mihalache, & Papalexandris (2016) address the notion of team ambidexterity, finding that supportive leadership behaviours at the organisational level influence the effectiveness of teams to achieve ambidexterity; and an individual's ability to pursue exploitation and exploration activities is shaped by the strength of social cohesion within the team.

As the paradox debate has evolved an understanding that ambidexterity is a multi-level phenomenon has increased (Good & Michel, 2013). However, the majority of ambidexterity research adopts the firm or business unit level analysis (Birkinshaw & Gupta, 2013; Nosella et al., 2012; Schad et al., 2016). This implicitly assumes homogeneity at the individual level (Felin & Foss, 2005) which is argued neglects how individual actors might influence the organisations ability to pursue a balance between exploration and exploitation (Bonesso et al., 2014). To fully explain the organisation an explanation of the individual as the central actor within the organisation is essential since origins of collectivist capabilities, are likely to be at the individual level (Felin & Foss, 2005).

2.6   Individual Ambidexterity

Birkinshaw & Gupta (2013) highlight that a version of the ambidexterity dilemma can be felt at the level of the individual employee. At the micro-level the individual capacity to perform two seemingly contradictory activities, individual ambidexterity, refers to the individual's ability to adapt to dynamic contexts by appropriately shifting between the demands for exploration and exploitation (Good & Michel, 2013). Ambidextrous managers host contradictions, being motivated and having the ability to recognise and understand a range of conflicting needs or goals and able to pursue each alternative (Mom et al., 2009).

2.6.1   Do Ambidextrous Managers Exist?

Whether exploitation and exploration can coexist at the individual level has been debated in the literature. Gupta et al. (2006) proposed that the coexistence of exploitation and exploration in a single domain i.e. an individual person, may not be possible and only being feasible within a team, unit or firm. An individual's intangible resources of time and knowledge are inherently finite and confine their abilities to develop competencies in both modes (Gupta et al., 2006). Conversely, Birkinshaw & Gupta (2013) argue a strict separation between exploration and exploitation at the individual level might be impossible.

Increasingly literature supports that individuals can behave in exploitative and explorative ways (Raisch & Birkinshaw, 2008). Mom et al. (2009) confirm that while it is difficult for an individual to excel at both exploitation and exploration these difficulties are not insurmountable. In a study of 716 managers across five large firms they illustrate that managers' exploitation and exploration actives are not mutually exclusive ends of a

continuum. Going on to confirm that managers differ in the extent to which they are ambidextrous.

Drawing on Farjoun's (2010) premise that exploitation and exploration are mutually enabling, Kauppila & Tempelaar (2016) observe during exploration individuals also find channels to exploit; during exploitation, they increase their knowledge and proficiency to impact exploration. Other scholars posit that rather than performed simultaneously a rapid sequence of set shifting between exploitation and exploration takes place in real time (Good & Michel, 2013).

2.6.2 The Importance of Ambidextrous Managers

There is growing support for the theory that ambidextrous organisations need ambidextrous managers, who can engage in paradoxical thinking and adapt to different kinds of learning (Mom et al., 2015). Leadership has been identified as an important antecedent for fostering organisational ambidexterity regardless of ambidexterity mechanics (Taródy, 2016). Senior executives are required to behave ambidextrously in order to make balanced resource allocations (Tushman & O'Reilly, 1996), mobilise resources, identify opportunities and facilitate cross-fertilisation of knowledge (Rogan & Mors, 2014). Gibson & Birkinshaw (2004) argue the importance of ambidexterity also in low-level managers. Middle-level managers are better positioned to create flexible and adaptive contexts which facilitates their learning for both efficiency and innovation (Kauppila & Tempelaar, 2016).

Important research suggests that individual ambidexterity is necessary for gaining the synergies at the level of the unit or firm (Kauppila & Tempelaar, 2016). (Jasmand et al., 2012) identified individuals in call centre environments creating synergies by performing sales and service activities simultaneously. As such, individuals are a significant source of organisational ambidexterity (Gibson & Birkinshaw, 2004). Faisal Ahammad, Mook Lee, Malul, & Shoham (2015) go further suggesting behavioural ambidexterity is not likely to arise from a set of practices, but rather out of the firm's unique human resource base. Additionally, with a motivational work design perspective, Parker (2014) suggests designing job roles requiring ambidextrous behaviours provides important enrichment and motivation for individuals.

Across contexts research is providing growing evidence that individual ambidexterity leads to improved individual performance (Miron-spektor et al., 2011; Rosing & Zacher,

2017). Specifically, Rosing & Zacher (2017) empirically confirm non-managerial individuals showed high innovation performance when they engaged in high and equal levels of exploration and exploitation activities. They go on to suggest this balance can help prevent a 'novelty trap' from over exploration and a 'routine trap' from over exploitation (Rosing & Zacher, 2017).

2.6.3 Factors Influencing Managerial Ambidexterity

Raisch et al. (2009) suggest that organisational factors (external) should be considered alongside the managers' personal characteristics (internal) to understand managers ambidexterity. Raisch et al. (2009) clarify "For example organizational contexts that provide managers with decision-making authority are likely to stimulate richer sense-making and cognitive processes at the personal level. Conversely, individuals' ability to act ambidextrously will have a cumulative effect on the organization's ambidexterity.".

This is supported by Andriopoulos and Lewis (2009) who conceptualised exploitation and exploration as a nested paradox comprised of strategic intent, customer orientation and personal drivers paradoxes.

The following section details what is currently known about the external and internal influencers on ambidexterity at the individual level, a summary is presented in Figure 5. Research is still in its infancy with a lot still unknown about ambidexterity at the individual conceptual level (Birkinshaw & Gupta, 2013; Bonesso et al., 2014; Kauppila & Tempelaar, 2016; Rosing & Zacher, 2017). Despite increasing acceptance of the importance of the individual manager in a firms' ability to achieve ambidexterity there is underdeveloped consensus about the influencers or behaviours that underlie individual ambidexterity (Rogan & Mors, 2014). A potential reason for the limited individual ambidexterity research is the existing bias toward structure instead of context (Good & Michel, 2013). It is clear that understanding individual ambidexterity may contribute to understanding how to balance exploitation and exploration within a unit or firm (Raisch et al., 2009).

2.6.4 External Factors Influencing Managerial Ambidexterity

A supervisor's paradoxical leadership has an enabling role in the attainment of individual ambidexterity in followers. Paradoxical leadership is a leadership style that combines high performance expectations (the task aspect) with strong managerial support (the support aspect) (Kauppila & Tempelaar, 2016). Zacher & Rosing (2015) propose a

ambidexterity leadership theory where leaders need to engage in opening and closing behaviours to promote ambidexterity. Leaders stimulate exploration through 'opening behaviours' such as encouraging followers to seek alternative approaches, to experiment, providing followers' freedom to think and act contrary to the norm and supporting their challenge of the status quo; and stimulate exploitation by using 'Closing behaviours' such as setting specific guidelines, and monitoring goal achievement to stimulate efficiency and decrease the variance of follower behaviours (Zacher & Rosing, 2015).

Kauppila & Tempelaar (2016) highlight the cultural clash between exploitation and exploitation and mismatched incentive schemes as key challenge for individual ambidexterity. It is posited that contextual ambidexterity is grounded in an organisational culture which values and promotes both creativity and discipline, diversity and shared vision (Wang & Rafiq, 2014). Organisation identity is a related factors which provides actors a perspective on organisational goals, mission, and dominant logic that guides exploratory and exploitative activities (Lavie et al., 2010).

Lavie et al. (2010) identify additional organisational antecedents such as slack resources, absorptive capacity, organisational structure, specifically distribution of power, resource and responsibilities across functions and units, organisational age and size.

Papachroni et al. (2016) suggest when exposed to an ambidextrous strategy, individuals actively manage resulting exploitation and exploration tensions through a process of tension interpretation based on their strategic orientation and organisational level. This may be related to a managers decision making authority which stimulates richer sense-making (Raisch et al., 2009), self-control and ownership over choices, motivation and ability to focus on both short-term and long term opportunties (Mom et al., 2009).

Knowledge flows are identified as an important co-ordination mechanism. Mom et al. (2009) determined that knowledge flows increased the levels of exploitation and exploration activities the manager may engage in. Top-down knowledge flows support exploitation while bottom-up and horizontal knowledge flows support exploration (Bonesso et al., 2014). However, individual differences between those who are managing the dilemma were not identified in the study (Good & Michel, 2013).

Figure 5: Literature Review Summary - External and Internal Factors Influencing Individual Ambidexterity (Adapted from Lavie et al., 2010)
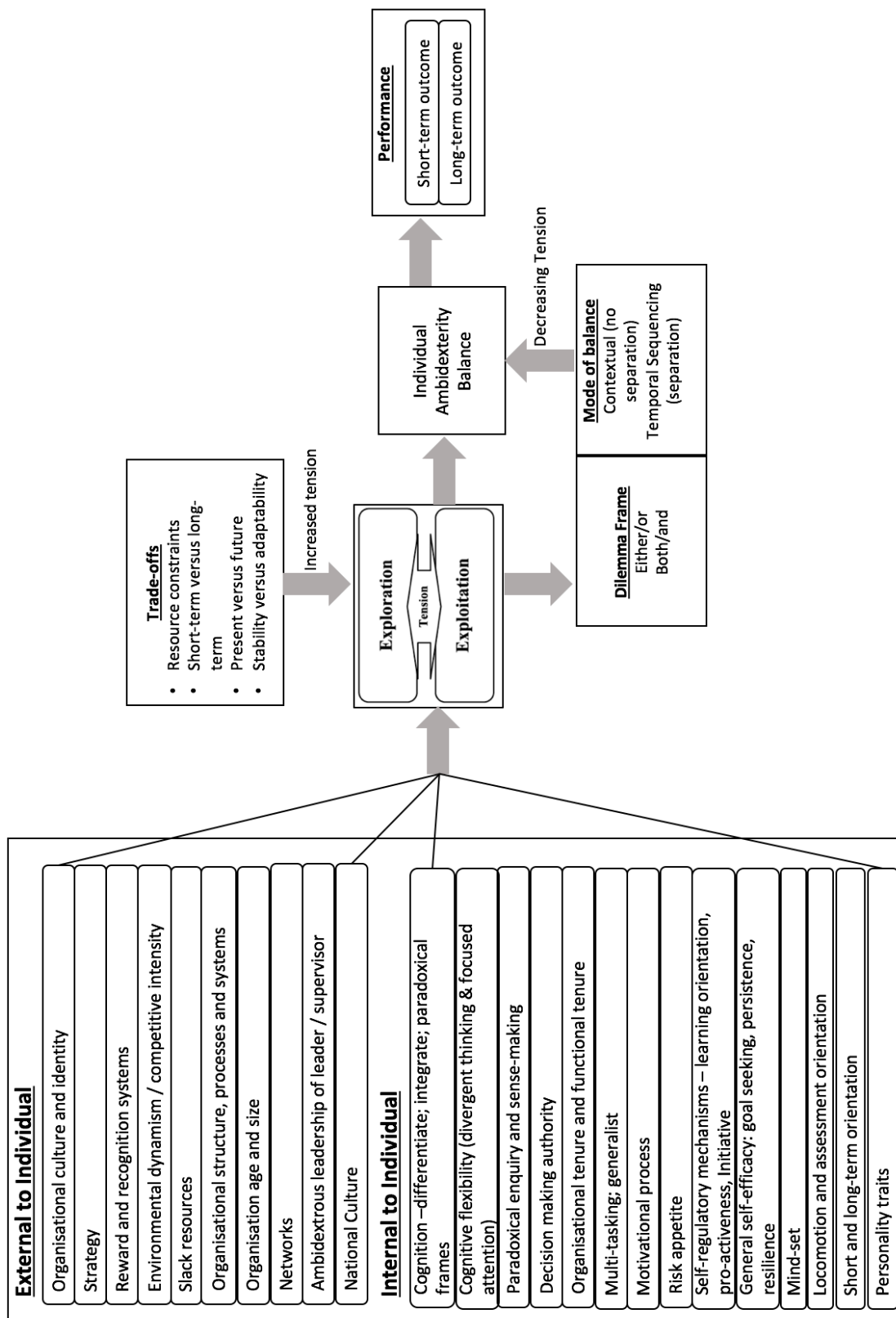
Rogan & Mors (2014) in conceptualising senior managers as actors within networks found that a manager's network provides buffering and integration levers for their exploitation and exploration activities. Specifically, suggesting managers use different parts of their networks for exploitation and exploration while achieving cross-fertilisation of ideas through integration of activities (Rogan & Mors, 2014). Significant differences in profile of contacts, density and level of formality were identified by Rogan & Mors (2014) between the networks of senior managers who focus on exploration or exploitation versus those who balance the two activities. These findings support Mom et al. (2009) findings that a managers cross-functional interactions and connectedness to other organisational actors positively relate to the managers ambidexterity.

2.6.5 Internal Factors Influencing Managerial Ambidexterity

Prior research has demonstrated that individuals in the same work setting vary in the extent they demonstrate ambidextrous behaviour (Miron-spektor et al., 2011; Mom et al., 2009) thus indicating individual ambidexterity is heavily influenced by individual characteristics (Kauppila & Tempelaar, 2016).

A prominent line of inquiry has been on the role of 'managerial cognition', namely a managers ability to differentiate (clarifying distinctions) and integrate (shifting levels of analysis) (Rogan & Mors, 2014; Smith & Tushman, 2005). The role of managers 'paradoxical frames' (mental templates in which managers recognise and accept the simultaneous existence of contradictory forces) in heightening managers awareness of the existence of a dilemma has been identified (Luscher & Lewis, 2008; Miron-spektor et al., 2011); acting as a catalyst to individual ambidexterity through individual-level 'paradoxical enquiry' and sense-making. Individuals can be prompted to use paradoxical frames by conditions in the environment or may spontaneously adopt paradoxical frames influenced by individual belief systems shaped by national culture (Keller, Loewenstein, & Yan, 2017).

Cognition and behaviour are closely connected to an individual's predispositions rooted in personality traits (Keller & Weibler, 2015). Keller & Weibler (2015) find that open-minded managers open to experience participate in more exploration activities while conscientious managers participate in more exploitative actives. In a similar vein Lavie et al. (2010) identifies a managers risk aversion and learning abilities as reinforcing either exploitation or exploration.

Good & Michel (2013) identify divergent thinking (generating numerous responses) as necessary for exploration, focused attention (ignoring erroneous or disruptive information) for exploitation and cognitive flexibility (the ability to cognitively shift mental set) for switching between the two. Ambidextrous managers must meet the key challenge of shifting between mind-sets in a rational way (Parker, 2014).

From a human resource management perspective Mom et al. (2015) found a positive influence of increasing organisational tenure on individual managers ambidexterity and conversely a negative influence of increasing functional tenure. A key theme to emerge in the micro-level ambidexterity literature has been the behavioural implications for managers (Good & Michel, 2013; Mom et al., 2015, 2009; Raisch et al., 2009). Ambidextrous managers are referred to as multi-taskers able to fulfil multiple roles and conduct a variety of tasks within a certain period of time (Mom et al., 2015, 2009); are more generalist than more specialist with increased versatility across situations (Birkinshaw & Gupta, 2013; Kang & Snell, 2009); able to refine and renew knowledge, skill and expertise from multiple sources (Mom et al., 2009; Papachroni et al., 2016); and have both short-term and long-term orientations towards opportunity identification and pursuit (O'Reilly & Tushman, 2004).

In highlighting the role of employee discretion in ambidextrous behaviour (Miron-spektor et al., 2011) self-regulatory mechanisms such as learning orientation, pro-activeness and personal initiative underpinned by personality and motivational processes are thought to influence individual ambidexterity (Kauppila & Tempelaar, 2016).

In reviewing leadership practices in project-based organisations Havermans, Den Hartog, Keegan, & Uhl-Bien (2015) identified 'involving others', 'stimulating discussions' 'listening to others', 'encouraging boundary spanning', 'valuing diversity' and 'accepting mistakes' were important behaviours to enable explorations. Conversely, they identified 'enforcing rules', 'sticking to agreements', 'redirecting efforts' in line with exploitation goals and 'making decisions' were important behaviours to enable exploitation (Havermans et al., 2015).

A few studies of non-managerial ambidexterity also offer insights. Kauppila & Tempelaar (2016) demonstrate that a high general self-efficacy - a motivational characteristic, where individuals view themselves as capable of meeting task demands over time and across situations - positively predicts individuals' ambidextrous behaviour. Specifically, a high

general self-efficacy, developed over time through experience, promotes challenging goal seeking, task persistence, resilience to failure and necessary risk taking (Kauppila & Tempelaar, 2016).

In their investigation of frontline employees Kao & Chen (2016) confirm that intrinsic motivation to engage in ambidextrous behaviour, is positively related to individuals' actual ambidextrous behaviour. Further identifying that the relationship is moderated by emotional intelligence (EQ), a proactive personality and extrinsic rewards (Kao & Chen, 2016). These findings have implications for an organisations recruitment and reward management, with the most suitable frontline service employees, and with all other things being equal, the best candidates are likely to be those who are proactive, have a high EQ, and/or who enjoy the task itself. (Kao & Chen, 2016).

Jasmand et al. (2012) found a positive effect of 'locomotion orientation' on customer service representative's ambidextrous behaviour where locomotion orientation reflects a preference for movement away from a current state when pursuing goals. High-locomotion-orientated individuals have a desire for action, to make things happen and welcome changing conditions, new experiences and a broad variety of tasks (Jasmand et al., 2012). This effect was enhanced when CSR's were also highly assessment orientated where thoughtful and correct analysis is sought to make the ideal choice (Jasmand et al., 2012)

2.7   Conclusion

The literature review highlights the consensus that organisations need to effectively manage the dilemma of exploitation and exploration to achieve long term success. Increasingly seen as a paradoxical dilemma organisational ambidexterity is posited as a solution. Despite evidence in the literature of the importance of individuals and managers in achieving ambidexterity there has been limited micro-level analysis of paradox management in general and specifically exploration and exploitation. This has prompted increasing calls for academic discourse about individual and managerial ambidexterity.

This proposed study aims to respond to these calls by exploring how individual managers view and ultimately resolve simultaneous demands for exploitation and exploration and the factors that influence managers' ability to achieve individual ambidexterity.

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CHAPTER 3: RESEARCH QUESTIONS

The literature review reveals that there has been extensive research into understanding the tensions arising from exploitation and exploration at an organisational level. Less is understood about how individual managers resolve these tensions and the factors that influence managers' exploitation and exploration activities and behaviours.

This research aims to gain a deeper understanding of how individual managers view and ultimately resolve simultaneous demands for exploitative and explorative behaviours. Establishing a thorough understanding of the factors that enable or inhibit individual ambidexterity in managers. To achieve this, the research will seek to answer the following questions:

Research Question 1: What are the enabling factors and the inhibiting factors that influence managers to adopt exploitation practices?

Research Question 1 aims to identify what factors individual managers perceive as enabling or inhibiting their individual exploitation (efficiency) activities and practices. This will seek to establish if the disparate influencing factors identified in the literature are articulated by managers; the most influential factors exerting influence on the manager; and uncover any new insights with regards to factors not identified in the extant literature. This will allow categorisation of enabling and inhibiting factors into an appropriate multi-level model.

Research Question 2: What are the perceived benefits and perceived negatives to the individual of adopting exploitation practices?

Research Question 2 seeks to establish what managers view as the pros and cons of their exploitation activities. This is relevant since solving a dilemma often involves weighing up the pros and cons of competing choices.

Research Question 3: What are the enabling factors and the inhibiting factors that influence managers to adopt exploration practices?

Research Question 3 aims to identify what factors individual managers perceive as enabling or inhibiting their individual exploration (innovation) activities and practices. This will seek to establish if the disparate influencing factors identified in the literature

are articulated by managers; the most influential factors exerting influence on the manager; and uncover any new insights with regards to factors not identified in the extant literature. This will allow categorisation of enabling and inhibiting factors into an appropriate multi-level model.

Research Question 4: What are the perceived benefits and perceived negatives to the individual of adopting exploration practices?

Research Question 4 seek to establish what managers view as the pros and cons of their exploration activities. This is relevant since solving a dilemma often involves weighing up the pros and cons of competing choices.

Research Question 5: What are the trade-offs between exploitation and exploration?

Research question 5 aims to identify the trade-offs managers perceive necessary when solving the dilemma of exploitation and exploration. This will seek to identify how managers perceive the tensions between the two poles/modes of exploitation and exploration.

Research Question 6: How can managers achieve ambidexterity (ie simultaneously achieve high exploitation and high exploration practices) to improve organisational performance?

Research Question 6 aims to establish managers perception of the relationship between the two poles/modes of exploitation and exploration and how they reconcile the tensions and conflicting demands of the dilemma. That is, if managers employ the trade-off perspective of either/or solutions that require balance or the paradoxical perspective of both/and solutions that require combination between exploitation and exploration. Furthermore, the research question aims to identify if managers view and ultimately resolve tensions differently depending on their management level.

CHAPTER 4: RESEARCH METHODOLOGY AND DESIGN

In this chapter, the research methodology and research design utilised is discussed including the rationale for its selection. The literature review, presented in Chapter 2, determined the need for further micro-level enquiry of exploitation and exploration paradox management. The research study aimed to understand how individual managers view and ultimately resolve simultaneous demands for explorative and exploitative behaviours. Specifically, through advancing understanding of the factors that enable or inhibit individual ambidexterity in managers at different organisational levels. In this chapter the method, design, sampling and data analysis is discussed.

4.1 Research Methodology and Design

Achieving the stated research aims required obtaining new in-depth insights into a currently under researched phenomenon thus a qualitative, exploratory research methodology was selected (Saunders & Lewis, 2012). Exploratory research is needed when there is a new, unexplained area within a chosen field of study and where understanding is sought of how people make sense of and interpret what they experience (Merriam & Tisdell, 2016; Saunders & Lewis, 2012). The richly descriptive qualitative data helps the researcher to understand the context in which decisions take place (Merriam & Tisdell, 2016; Myers, 2013). This was particularly important since the literature identified ambidexterity as a nested concept with a number of contextual ambidexterity antecedents (Gibson & Birkinshaw, 2004).

The research approach was inductive with the researcher gathering data to build concepts and theories (Merriam & Tisdell, 2016). This was congruent with the research objective of developing a framework affecting managerial ambidexterity for academics and practitioners. Inductive reasoning with a bottom up approach informs the methodology choices (Saunders & Lewis, 2012), therefore the research strategy was an inductive methodology which is well suited to new research areas and generating novel theory (Bonesso et al., 2014).

4.1.1 Research Setting

A strategy of multiple (18) managers across few (two) firms was selected to provide the ability to study managers' individual ambidexterity within a bound system (Bloomberg & Volpe, 2012). This offered additional insights into the role of organisational and social

capitals, potential key categories of influence on individuals as identified in the literature (Turner et al., 2013).

For the companies purposive sampling was selected with an emphasis on gaining in-depth understanding through homogenous information rich research settings (Merriam & Tisdell, 2016; Saunders & Lewis, 2012). This was complemented with convenience sampling with an emphasis on access (Merriam & Tisdell, 2016; Saunders & Lewis, 2012).

The rationale for selection of the companies was four-fold. (1) South African subsidiaries of a MNE so that the dynamic contextual effects on plurality were present (Smith et al., 2017). (2) With the objective of the research to yield insight and understand of individual ambidexterity it was important that the participants context was one in which an ambidextrous strategy was implicitly or explicitly followed (Papachroni et al., 2016). (3) to ensure homogeneity and to minimise extraneous variability (Smith, 2014) organisations sharing comparable contexts were selected (Saunders & Lewis, 2012). A homogenous sampling variety allows characteristics to be explored in greater depth and minor differences to be more apparent (Saunders & Lewis, 2012). (4) From a convenience sampling perspective, the researcher had existing relationships with and access to the MD's of both organisations.

Company A and Company B were assessed to have a common strong commitment towards both innovation and efficiency at the corporate level. This is evidenced by (1) their respective innovation orientated brand tag lines and (2) their longevity. In addition, while both companies can be described as exploitative arms of a MNE they exhibit examples of local adaptation of products, business models and operational execution. For these reasons both companies on a corporate level and South African subsidiary level were assessed as following an organisational ambidexterity strategy.

Both organisations are diversified manufacturers, listed on the Fortune Global 500 for the last 22 years. They operate in the 'industrials' sector and are MNE's operating in South Africa, with open, collaborative innovation strategies. Company A, described as a diversified product conglomerate, has operations in 70 countries, over 89,000 employees worldwide and revenues in excess of $30 billion. Operating in South Africa for over 60 years, Company A's South African subsidiary is the largest subsidiary in Africa. The subsidiary head offices are in Johannesburg. Company B, described as a leading health technology company, has operations in over 60 countries, has almost

113,000 employees worldwide and revenues of just under $30 billion. Company B have had a presence in South Africa for over 100 years and is the MNE's largest African subsidiary. The African regional office and subsidiary head offices are in Johannesburg.

4.2   Population

As previously discussed managers decision-making authority (Raisch et al., 2009) and organisational level (Papachroni et al., 2016) are likely to affect an individual managers ability to enact ambidexterity or manage resulting tensions. Therefore, the research aimed to elicit insights from managers at different levels of seniority with increasing levels of responsibility and autonomy.

Selection of managerial levels was guided by extant literature which confirms influential roles in the field of ambidexterity for Top Management Team (Knight & Paroutis, 2016; Smith, 2014), Group Managers (Kauppila & Tempelaar, 2016) and Middle Managers (Gibson & Birkinshaw, 2004; Kauppila & Tempelaar, 2016).

The population was thus defined as Executive Leaders and Group Managers (Top Management Team - TMT) and Middle Managers in diversified manufacturing organisations operating an ambidextrous strategy in the South African context.

4.3   Sampling Method and Size

The study utilised a 2-tier sampling. The sampling method for the research setting (companies) was a purposive sampling with convenience sampling (Merriam & Tisdell, 2016) as discussed in section 4.1.1. Purposive sampling is a non-probability sampling technique in which the researcher uses judgment to select the sample members based on specific reasons which have been guided by the literature (Saunders & Lewis, 2012). Convenience sampling is a sampling strategy which relies on ease of access (Saunders & Lewis, 2012).

The sampling technique for participants was non-probability, judgement sampling (Bloomberg & Volpe, 2012). Consideration of the individual's current role and level within the organisation as well as their previous experience was used as an indicator of their exposure to both exploitation and exploration activities. A sample list which facilitated quota sampling (Bloomberg & Volpe, 2012; Saunders & Lewis, 2012) was drawn up with the Managing Director (MD) of Company A and the Human Resource Director of Company B. Non-probability quota sampling ensures the sample represents certain

characteristics in the population, in this case management level (Saunders & Lewis, 2012). Each internal contact was sent an email invitation from the MD and HRD to participate.   Due to the flat organisational structure within both companies Group Managers are also the Top-Management-Team (TMT).

The final sample size and quota between the management levels was determined when the researcher believed saturation point had been reached (Saunders & Lewis, 2012). Saturation is defined as occurring "…when continued data collection produces no new information or insights into the phenomenon you are studying." (Merriam & Tisdell, 2016, p. 199).

Table 5: Sample Size by Managerial Level and Research Setting

Company	Managerial Level	Size	Titles & Functions
A	TMT - Executive Leaders	5	Managing Director Country Group Business Leaders (3) Functional Head - IT and Transformation Leader
A	Middle Managers	4	Business Managers (3), Functional Manager – Supply Chain Manager
B	TMT - Executive Leaders	5	Former Market CEO Functional Head – Logistics & Supply Chain, Functional Head – HR Director, Group Director – New Markets Director, Functional Head – Business Transformation
B	Middle Managers	4	Department Manager – Customer Services Mgr, Department Manager – Supply Chain Mgr, Department Manager – Strategy and Intelligence Mgr, Department Manager – Business Transformation Mgr

4.4   Unit of Analysis

Consistent with the research questions the unit of analysis was the perceptions and opinions of individual managers, across two organisational levels. Namely the TMT and their direct reports with responsibility for managing other managers (defined as middle managers) whose role required them to exploit existing and explore new knowledge or capabilities.   The unit of analysis was selected to provide insights into the factors that influence the individual's ability to adapt by shifting between the demands for exploration and exploitation in the workplace and how this is enacted.

4.5 Data Gathering Instrument

A semi-structured interview guide, provided in Appendix 2, was designed to answer the research questions. A semi-structured guide provides some structure while allowing flexibility for improvisation and probing for rich insights (Myers, 2013). The interview guide was developed based on literature review findings and building on previous management dilemmas research (Gilbert & Sutherland, 2013; Naidoo & Sutherland, 2016). A consistency matrix, provided in Appendix 1, was used to map the interview questions to the research questions (Chapter 3) and supporting literature (Chapter 2). This ensured logical coherency.

Sixteen open-ended questions were utilised to facilitate discourse regarding individual ambidexterity. This provided the participants the opportunity to share insights as they arose during the course of the interview (Bloomberg & Volpe, 2012).

Pilot interviews were conducted with one middle manager from company A and one TMT from company B in order to test and refine the interview guide and interviewer technique (Bloomberg & Volpe, 2012; Saunders & Lewis, 2012). The pilot interviews were managed in the same way the live interviews were envisaged to be conducted including hand written notes and with permission of the participant recorded using a computer.

As a result of the pilots a number of refinements were made. Firstly, due to the complexity of the subject an explanation sheet of the terms was created and explained by the interviewer at the start of each interview (Appendix 3). It was acknowledged this may bias the responses but the clarification was essential to keep discussions on topic and aided understanding of the research questions. Secondly, during the pilots it became clear that participants struggled to separate individual-level activities from team-level or organisational-level activities. The discussion guide and interviewer prompts where amended to keep discussion fluid whilst still on topic. This ensured insights could be uncovered that were required to meet the research objectives within the ideal schedule of 45 to 60 minutes. The pilot output also enabled development of an initial coding schema for analysis (Bloomberg & Volpe, 2012; Saunders & Lewis, 2012).

4.6 Data Gathering Process

Data was gathered during 18 face-to-face interviews conducted with TMT and middle managers of the South African subsidiaries of two MNE organisations. Being face-to-face the researcher was able to identify non-verbal cues such as confusion, discomfort

or excitement (Merriam & Tisdell, 2016). This enabled a richer interpretation of the managers' perceptions and feelings towards exploitation-exploration tensions and individual ambidexterity.

Sixteen interviews were conducted during company immersion days. This immersion approach (Bloomberg & Volpe, 2012) afforded the researcher opportunities to conduct un-structured observations of the wider context, offering rich qualitative supplementary data for triangulation which confirmed emerging findings (Merriam & Tisdell, 2016). Nine interviews were conducted in the South African Head Office of Company A in Johannesburg on the 3rd and 4th July 2017. Seven interviews were conducted in the South African and African Head office of Company B in Johannesburg on the 12th July 2017. The remaining two Company B interviews were conducted face-to-face but off company premises due to participants travel commitments. One on the 2nd July 2017 was held in the participants home and the other on the 11th August 2017 was held in a coffee shop. The average interview ran for 50 minutes and ranged between 38 and 72 minutes. Due to time restrictions and the semi-structured nature of the interview, not all participants answered all 16 questions and the order in which themes were covered and questions were asked varied (Saunders & Lewis, 2012).

After formal introductions, the interviewer explained the title of the research and used the explanation sheet, presented in Appendix 3, to ensure the concepts and scope of the research were understood. The participants were then asked to sign the consent letter (Appendix 4) and permission to record the interview was sort. All interviews were recorded using two recording devices, a computer and an ipad and then transcribed. Participants were encouraged to respond freely and honestly to the questions and assurances of company and participant confidentiality were reiterated.

During the interview, the interviewer took comprehensive hand-written notes. This helped initiate becoming familiar with the material (Merriam & Tisdell, 2016). Probing techniques were used to uncover more detail and clarification techniques used to check interviewer understanding (Saunders & Lewis, 2012). The participants were asked to mark their responses for questions 12, 13 and 14 on the interview guide. The scheduling of interviews was done so that a reflexivity journal could be completed between interviews to capture non-verbal cues and identify possible themes and patterns. The recordings, hand written notes, transcripts and non-verbal cues formed the data that was analysed.

4.7 Data Analysis

Analysis started with reading and listening to all data repeatedly to achieve immersion and obtain a sense of the whole (Merriam & Tisdell, 2016). Thematic content analysis of recordings, transcripts and hand written notes was done to identify common themes (Braun & Clarke, 2013). Defined as "A method for identifying themes and patterns of meaning across a dataset in relation to a research question." (Braun & Clarke, 2013, p. 175). Analysis was conducted using Microsoft Excel software which facilitated the storage, retrieval, and enumerating data. An iterative process of open coding, albeit initially guided via extant theory and pilot findings (Bloomberg & Volpe, 2012; Saunders & Lewis, 2012) was used due to the incompleteness of the extant literature on individual ambidexterity. Reflecting a combined approach, of data driven, 'bottom-up' inductive thematic analysis and 'top-down' theoretical thematic analysis (Braun & Clarke, 2013). The Table 6 below describes the stages of analysis followed.

Table 6: Stages of Thematic Analysis (Source: **Braun & Clarke (2013) p. 203)**

Stage	Thematic Analysis
1	Transcription
2	Reading and familiarisation; taking note of items of potential interest
3	Coding – complete; across entire dataset
4	Searching for themes
5	Reviewing themes (producing a map of the provisional themes and subthemes, and relationships – the 'thematic map'
6	Defining and naming themes
7	Writing - final analysis

Frequency analysis was used to rank themes according to the number of participants identifying each factor theme to determine relative importance of terms and concept, a process known as a quasi-statistical approach (Bloomberg & Volpe, 2012). High-ranking factors were considered to indicate overall perceived dominance or influence of the factor. However, this was augmented in step five where pattern-based analysis was used to capture elements most meaningful to answer the research questions (Braun & Clarke, 2013). Also in step five the level of the enabling and inhibiting factor themes was analysed and judged to internal to the individual, social such as specific to a team or social interaction or company level factors. Some factors themes were assessed to represent more than one level. The output of the analysis is presented in Chapter 5. In addition non-verbal cues and contextual variables collected during immersion were

analysed and are also presented in Chapter 5 (Merriam & Tisdell, 2016). The analysis enabled development of a force field frameworks presented in Chapter 6 and the dilemma framework presented in Chapter 7.

Each interview took approximately five hours to analyse, totalling in excess of 90 hours of analysis. The two-company study strategy dictated a two-stage analysis, namely within-company analysis and across-companies' analysis.

4.8   Research Limitations

There is a risk of potential bias involved with a subjective qualitative research techniques (Saunders & Lewis, 2012). The following aspects were identified as limitations of this study.

- In company research strategies are limited with respect to the generalisability of findings due to the bounded system (Knight & Paroutis, 2016; Bloomberg & Volpe, 2012).   In addition, the selection of two companies with similar characteristics operating in a similar industry limit generalisability.
- Purposive sampling relies on researcher judgement. As such the views and opinions of the researcher could introduce sampling bias, limiting the representability of the sample (Saunders & Lewis, 2012)
- Interviewer bias is also a potential limitation due to the face-to-face semi-structured proposed methodology (Saunders & Lewis, 2012)
- The explanation sheet may have introduced subject biased or led responses
- Reliability may be jeopardised by potential subject bias. Unreliable information is possible if participants have concerns that being honest might portray them or the organisation negatively (Saunders & Lewis, 2012)
- The proposed study is cross-sectional and thus will represent a moment in time (Saunders & Lewis, 2014) therefore a potential limitation is the study's inability to identify how managers resolve tensions as a dynamic capability (Nosella et al., 2012; Tushman & O'Reilly, 1996)
- The unit of analysis is the perceptions and opinions of managers as such findings maybe be exposed to bias and inaccuracy (Saunders & Lewis, 2014).

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CHAPTER 5: RESULTS

5.1 Introduction

The results are presented in the following chapter, laid out in accordance to the research questions presented in Chapter 3. Key observations are discussed in general and under the relevant research questions and aligned interview questions. The rationale for each research questions is presented in Chapter 3 and the map of interview questions to each research question is presented in the consistency matrix in Appendix 1. As discussed in Chapter 4, the research methodology was qualitative and exploratory. To uncover new insights semi-structured interview guides were used with open questions and probing techniques. Due to time restrictions and the semi-structured nature of the interview, not all participants answered all 16 interview questions in the interview guide, presented in Appendix 2.

Analysis was conducted using a seven-step thematic content analysis framework presented in Table 6 in Chapter 4. Relative importance of the identified themes was measured through frequency analysis of themes identified by all participants and frequency analysis of self-stated dominant themes. The most frequently identified themes and those deemed most meaningful to answer the research questions are discussed in more detail (Braun & Clarke, 2013).

Results for each interview question are presented in frequency tables for the total sample. Appendix 7 presents total frequency for each level of manager namely the Top Management Team (TMT) and Middle Managers (MM); and for all level managers in Company A (Co A) and Company B (Co B). Observations are made of any differences by question. As discussed in Chapter 4, the level of the enabling and inhibiting factor themes were analysed and judged to internal to the individual, social such as specific to a team or social interaction or organisational level factors. Some factors themes were assessed to represent more than one level.

This chapter first offers an overview of the sample, general observations are made about the context within the research setting and then results are presented by research question.

5.1.1 Overview of the Sample

As presented in Chapter 4, 18 face-to-face interviews were conducted with Top Management Team (TMT) level managers and Middle Managers (MM) of the South African subsidiaries of two MNE organisations. As presented in Table 7, nine interviews were conducted in each organisation, with a total of ten TMT and eight MM level managers.

Table 7: Sample by Managerial Level and Research Setting

Company	Managerial Level	Size	Titles & Functions
A	TMT - Executive Leaders	5	Managing Director Country Group Business Leaders (3) Functional Head - IT and Transformation Leader
A	Middle Managers	4	Business Managers (3), Functional Manager – Supply Chain Manager
B	TMT - Executive Leaders	5	Former Market CEO Functional Head – Logistics & Supply Chain, Functional Head – HR Director, Group Director – New Markets Director, Functional Head – Business Transformation
B	Middle Managers	4	Department Manager – Customer Services Mgr, Department Manager – Supply Chain Mgr, Department Manager – Strategy and Intelligence Mgr, Department Manager – Business Transformation Mgr

Participants spanned a range of business groups and functions including Human Resources, IT, Business Transformation, Strategy, Customer Service, Supply Chain and Sales & Marketing. A range of nationalities and cultures were represented with Austrian, British, Cameroonian, Spanish and South African participants.

In both companies' participants' tenure ranged from less than two to in excess of 20 years. Participants with long tenures in both companies had worked in multiple businesses and functions.

5.2   General Observations

5.2.1 Context

Both organisations have flat organisational structures due to the relative small size of the South African subsidiary turnover. In both companies' participants perceived the South African subsidiary strategy to be an exploitation strategy. A TMT in Company A stated

"We have a strong heritage of innovation over the long term on product. But on running the business we are exploitation heavy which is because of our size and global footprint". However, in qualifying this statement they clarified *"on a micro-level, at a project by project level we are very much encouraged to be creative, unique as possible and the best we can be, but of course within a framework."* They explained *"It's about mitigation of risk [in a subsidiary], at a tactical level [we are expected] to explore but country level we are measured and expected to deliver against exploit and that is how the business is run".*

During immersion days indicators of the organisation cultures were observed and insights gained in open discussions with participants. Company A's reception includes an innovation centre where the company's product innovations were showcased. Branding and posters with overt innovation messages were visible throughout the buildings public and business areas. However, the building was quite formal in style and layout. Conversely, Company B's office style and layout was modern with multiple informal collaboration zones. Throughout the public spaces Company B also celebrates a product innovation heritage. Small but numerous single exhibits of product innovations spanning over 100 years were seen in the meeting rooms and corridors. Other than this there were no overt branding messages visible.

Both organisations are described by participants as lean six sigma organisations. This impacted the perceptions of participants in regard to exploitation activities. One TMT in Company B explained *"We are a lean [six sigma] organisation, which means we have many, many, many examples where we have clear processes which are articulated and documented with the standard [ways of working]… which people are measured against".* While a TMT in Company A went so far to say *"Six Sigma and continuous improvement is in [Company A's] DNA, it's in my DNA."*

The majority of participants, unprompted, expressed how interesting they found the research topic and how thought provoking the interview had been for them personally. Four interviews extended beyond 60 minutes due to general discussion around the topic led by the participant.

5.2.2 Cognitive Resonance

In all interviews, the interviewer had to bring the participant back to the individual level of analysis multiple times. Participants often gave responses on a team or business

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group level finding these level of analysis more comfortable topics of discussion. One manager explaining *"Everything is a team game in [Company A]".*

5.3   Results for Research Question 1

WHAT ARE THE ENABLING FACTORS AND THE INHIBITING FACTORS THAT INFLUENCE MANAGERS TO ADOPT EXPLOITATION ACTIVITIES AND PRACTICES?

The aim of Research Question 1 was to identify what factors individual managers perceive as enabling and inhibiting their individual exploitation (efficiency) activities and practices. Seeking to establish if the disparate factors identified in the literature combined to provide a comprehensive, exhaustive list of influencing factors. In this regard, the question sought to uncover any new insights with regards to factors that have not been identified in the extant literature. The interview questions were developed to identify the most salient and impactful factors achieved through frequency analysis.

Individual exploitation was defined for the participants as 'Your individual activities you repeat in the same way or evolve in a continuous way to achieve efficiency or operational excellence?' The related interview questions were (4a) What do you see as the factors that enable your own exploitation activities? (4b) Which of these factors is the most dominant for you and why? (5a) what are the factors that inhibit your own exploitation activities? (5b) Which of these factors is the most dominant for you and why?

5.3.1   Results for Interview Question 4a

What do you see as the factors that enable your own exploitation activities?

This interview question was designed to uncover all factors participants perceived as enabling their exploitation (efficiency) activities. The results are presented in Table 8. A total of 21 enabling theme factors were identified, of which nine were internal, eight organisational, two social-level factors and one both organisational and social-level factor. The top five factors are discussed in more detail.

Table 8: Q4a - Enabling Factors for Managers' Exploitation Activities

Rank	Enablers of Exploitation	Level	Frequency
1	Diversity of business experience	I	10
2	Systems, processes, methodologies and cadence	O	9
2	Motivation and ambition - for excellence, improvement, learning, progression	I	9
4	KPI's and appraisal system - aligned to exploitation	O	8
4	Mind-set - a continuous improvement; process orientation; customer focus mind-set	I	8
6	Corporate strategy and initiatives	O	7
7	Organisational structure - Business transformation team to support exploitation activities	O S	6
7	Collaboration: Working with or as an engaged, diverse and aligned team	S	6
9	Organisational culture and environment	O	4
9	Training and skill set / toolbox (six sigma & CI)	I	4
9	Personal network - strength, diversity, density and relationships	S	4
9	Being analytical and alert to opportunities	I	4
13	Personal leadership skills (persuasion and negotiation)	I	3
14	Insight of businesses and processes	I	2
16	Individual problem-solving skills - methodical, logical, enquiring, evaluative	I	2
17	Change management - Being a change agent to lead continuous change initiatives	I	1
18	Local Leadership Themes	O	1
19	Locus of control (accountability for exploitation)	O	1
20	The current results situation (Environmental and contextual pressure)	O	1
21	Zero supervision (empowerment)	O	1

Key*: Level of factors: I – Internal individual-level; S – Social-level; O – Organisation-level*

Two major differences were identified between the companies (see Table 26, Appendix 7). Six Company B participants and zero Company A participants identified 'Business transformation team - clear organisational structure with human resources to support exploitation activities'. Company B had a business transformation team based in South Africa. Conversely, four Company A and zero Company B participants identify their network as an enabling factor. These two factors may be related in that they both refer to networks. In Company B the supporting network is formalised structurally; conversely in Company A the supporting network is informal. For this reason, the factor theme of 'business transformation team' was assessed to be an organisational and social level

factor. The top five enabling factors, of which three were individual-level and two were organisational-level factors, are discussed in more detail.

5.3.1.1 Diversity of a Manager's Business Experience

Diversity of a manager's business experience was the top ranking enabling factor with a frequency of ten. The majority of managers linked their experience to tenure, and spoke of experience unlocking knowhow, one manager saying, *"A lot of it is understanding the company and how you can get things done."* Others said experience increases the managers personal toolbox, skill-sets and capabilities, evidenced by one manager who explained, *"The precursor to [situational understanding and interpretation] is experience and capability. If you're [in a role] looking at the company level its very beneficial to have worked across departments and businesses, have experience of different situations, different processes to get that understanding and to develop the right instinct to understand optimisation".* Others spoke of experience as providing understanding of functional interdependencies, *"I think it's having the knowledge of the different functions so you can also understand what needs to be done but also from the different functions [perspective] and you don't just see things through one lens".*

5.3.1.2 Organisational Systems, Processes and Methodologies

With a frequency of nine the organisational-level factor of 'Systems, processes, methodologies and cadence throughout the organisation' ranked joint second. Six Sigma was a common theme in both companies with a manager saying *"Six sigma has methodologies like PDCA [Plan, Do, Correct, Act], 5 whys' which are big enablers for me".* This was echoed by another *"Six sigma was a pillar in the organisation and therefore, for want of a better word it became mandatory that that's the way you would do things... it has created a new language of discussion and a language of efficiency."*

5.3.1.3 Personal Motivation and Ambition

Mentioned three and a half times more frequently in company A than Company B, the internal factor of 'personal motivation and ambition' was joint second. One Company A manager simply stated *"It's the drive for excellence…".*

5.3.1.4 Clear Objectives, KPI's and Appraisal System Aligned to Exploitation

With a frequency of eight, 'clear objectives, KPI's and an appraisal system aligned to exploitation' ranked joint fourth. One manager stated, *"I have very clear Continuous*

Improvement targets set for me as an individual and I am appraised against that. So, there is a consequence for me which I think is very important… If I don't hit my KPI's on continuous improvement there is a consequence for me financially in my bonus and in my salary increases, that is linked to my performance appraisal." Another went on to explain *"[KPI's and objectives] enable prioritisation of exploitation".*

5.3.1.5 Mind-set

The other joint fourth factor was the internal-individual factor of mind-set. Managers referred to a range of themes including having a customer-centric mind-set saying for instance *"I think having… 'customer first focus' mind-set because it's not like tomorrow is another day.";* a process and continuous improvement mind-set managers saying *"…very structured thinking..."* and *"The six sigma [continuous improvement] mind-set that certainly helps improve the efficiency side".* Also, another explained *"I'm a good process person, I like processes...".*

5.3.2 Results for Interview Question 4b

Which of the exploitation enabling factors you have given me are most dominant for you?

This interview question was designed to identify the self-stated saliency of the identified enabling factors. A few participants could not limit themselves to one factor. As presented in Table 9, 14 theme factors in total were selected, a diverse response. Seven factors were internal individual, four organisational, two social and one combined organisational and social-level factors.

The results generated a different ranking than frequency of participants in interview question 4a three of the previous top five enabling factors remained in the top five namely personal motivation and ambition, KPI's and appraisal system and diversity of experience. Corporate strategy and initiatives moved up from ranked sixth to joint first one manager explaining *"There is absolute clarity on the mandate and the goals, high level support, visibility".* Personal network moved from ninth to joint fourth one manager explaining *"…right now I am new to that context so I'm relying on my depth and breadth of experience and network"*

Table 9: Q4b - Most Dominant Enabling Factors for Managers' Exploitation Activities (Self-Stated)

Rank Q4b	Rank Q4a	Most Dominant Enablers of Exploitation (Self Stated)	Level	Frequency
1	2	Motivation and ambition - for excellence, improvement, learning, progression	I	4
1	6	Corporate strategy and initiatives	O	4
3	4	KPI's and appraisal system - aligned to exploitation	O	3
4	1	Diversity of personal business experience	I	2
4	9	Personal network - strength, diversity, density and relationships	S	2
6	4	Mind-set - a continuous improvement; process orientation; customer focus mind-set	I	1
6	7	Organisational structure - Business transformation team to support exploitation activities	OS	1
6	7	Collaboration and Team: Working with or as an engaged, diverse and aligned team	S	1
6	9	Organisational culture and environment	O	1
6	2	Systems, processes, methodologies and cadence	O	1
6	9	Being analytical and alert to opportunities	I	1
6	13	Personal leadership skills (persuasion and negotiation)	I	1
6	16	Individual problem-solving skills (methodical, logical, enquiring, evaluative)	I	1
6	17	Change management skills / Being a change agent (leading continuous change initiatives)	I	1

Key: *Level of factors: I – Internal individual-level; S – Social-level; O – Organisation-level*

5.3.3   Results for Interview Question 5a

What are the factors that inhibit your own exploitation activities?

This interview question was designed to uncover all factors participants perceived to inhibit their exploitation activities. In general participants had to think much harder about the factors that inhibited their exploitation activities. As presented in Table 10, a total 15 theme factors were identified. Results by managerial level and organisation can be seen in Table 27, Appendix 7.

Nine were organisational, four internal individual and one social-level factors. In addition, change resistance was assessed to be internal and social-level; discussed in terms of an individual's change management skill and others change resistance.

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Table 10: Q5a - Inhibiting Factors for Managers' Exploitation Activities

Rank	Inhibitors of Exploitation	Level	Frequency
1	Centralisation - approval process; misalignment to local needs; Inflexible processes not aligned to efficiency	O	7
1	Boredom and aspiration to create	I	7
3	Poor compliance of others - others as inputs into or outputs from Continuous Improvement)	S	5
3	Contextual dynamics - Market reality means you can't follow the standard way of working; Environmental crisis and ensuing distractions	O	5
5	Diminishing returns - the effort outweighs the benefit	O	4
5	System failure - lack of access to systems or inflexible legacy or duplicate systems, tools and information	O	4
7	Change resistance and poor change management	I S	3
7	Lack of continuous improvement mind-set	I	3
7	Resource capacity - being too lean creates a lack of time	O	3
10	Conflicting priorities of silos	O	2
10	Low role tenure - turnover of temporary staff means learning for exploitation is compromised	O	2
10	Unclear leadership direction	O	2
13	A manager's personal change agility	I	1
13	Lack of self-awareness (emotional intelligence - EQ)	I	1
13	Subsidiary context - small relative size of subsidiary	O	1

Key: *Level of factors: I – internal individual-level; S – Social-level; O – Organisation-level*

Of the top six factors only one was an internal individual-level factor. The top four factors in terms of frequency are discussed along with the additional meaningful factors to the research are discussed in more detail.

5.3.3.1 Centralisation

With a frequency of seven the joint top-ranking factor was centralisation. Specifically referred to as centralised approval processes and inflexibility of centralised processes that participants felt were not aligned to efficiency. This factor was most often mentioned by MM with participants becoming visibly frustrated in both companies. One Company B MM saying *"... for certain simple things the number of approvals you need to jump through .... is very high"*. One Company A TMT went further saying *"The roadblocks and challenges you face in the organisation… comes back to that point where because we have a set process when it comes to approvals it's a case of 'this is the only way to go'… we are not looking at other ways of doing things where we can be more efficient because*

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we have made up our mind that THIS IS the only way… Having a very defined process doesn't allow us to make [incremental] changes that could be very beneficial to the business. You find yourself having to speak to 5 different people and saying the same thing over and over."

5.3.3.2 Boredom and Aspiration to Create

The other top-ranking factor was the internal individual-level factor of boredom and aspiration to create, with a frequency of seven, equally split across managerial level. One manager said "*Boredom is driven because I've done it too many times and it's aligned to experience. I've done too much here already"*, while another went so far to say *"I have to force myself to do it."*. One TMT explained the impact their aspiration to create has on others saying *"Me personally, yeah, in terms of my leadership style I am quite creative and very flexible and adaptable and open to new ideas, so I think sometimes what inhibits me [exploit]… when I have personally got to a bored… I start coming up with ideas which are relevant but are not appropriate… so then what happens is I derail other people."*

5.3.3.3 Poor Compliance of Others

The joint third ranking factor with a frequency of five was 'poor compliance from others' who are either inputs or outputs of a process or standard routine. Four times as many Company A managers mentioned this factor than Company B managers. A Company A MM explained *"Sometimes you have people in the chain who don't have the professional background… they don't understand how the processes overlap"*. Taking a more cynical view a Company A TMT described *"We have fancy systems and processes and control… but if people decide to find a loophole they can easily get away from being controlled… because then I don't see a red flag"*

5.3.3.4 Contextual Dynamics

The other joint third factor was contextual dynamics. Five participants discussed this factor, predominantly at TMT level and within Company B. One company B TMT explained *"Our market is a small market in context of [Company B], however it is a dynamic market due to the complexities coming from volatility. We are more prepared for the mature markets where they are right to do that, it is more than [data removed] % of profits, so it's normal that… standard processes and procedures are based on the other markets. What's left is Africa, LATAM, India, we don't have the processes right to*

really give an answer to the reality of those markets, being so volatile and different. Specifically, for Africa we really trying to change the efficiency part into the reality of our market by adapting and exploiting in a way that meets our needs. Our business would not run if we did not". A Company A TMT expanded *"Changes in the macro, you dip into a crisis and it takes you off plan. It can be internal issues driven by bigger company or it can be external and in the VUCA world we live in it more frequent these days than ever before. So that inhibits because something left of field knocks you off path."*

5.3.3.5 Other Inhibiting Factors

Two managers identified low role tenure as an inhibiting factor. This was discussed in terms of their team and the turnover of temporary staff but has application to the individual. One manager explained *"we have an external recruitment freeze so we have to use temporary staff… when they come in they are in a constant state of exploring, learning so that inhibits exploitation… they don't know the [company A] way of doing things… it makes things very inefficient."*

5.3.4 Results for Interview Question 5b

Which of the exploitation inhibiting factors you have given me are most dominant for you?

This interview question was designed to identify the self-stated saliency of the identified inhibiting theme factors. Ten factors in total were selected showing a diverse response, presented in Table 11. Of those, four were internal individual, five organisational and one social-level factors.

Of the top three-ranked dominant factors resource capacity, identified by two Company A managers, had moved up the ranking from seventh in interview question 5a. Participants explained that reducing headcount was creating significant tension for them personally and as a result they were becoming less efficient.

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Table 11: Q5b - Most Dominant Inhibitors of Individual Managers' Exploitation Activities (Self-Stated)

Rank Q5b	Rank Q5a	Most Dominant Inhibitors of Exploitation - Self Stated	Level	Frequency
1	1	Centralisation	O	5
2	2	Contextual Dynamics	O	3
3	1	Boredom and aspiration to create	I	2
3	7	Resource capacity; being too lean	O	2
5	11	Unclear leadership	O	1
5	7	Lack of a Continuous Improvement mind-set	I	1
5	7	Change Resistance and poor change management	I	1
5	4	System failure - Lack of access or inflexible legacy or duplicate systems, tools and information	O	1
5	4	Diminishing returns - the effort outweighs the benefit	I	1
5	2	Poor compliance of others	S	1

Key: *Level of factors: I – Internal individual-level; S – Social-level; O – Organisation-level*

5.4   Results for Research Question 2

WHAT ARE THE PERCIEVED BENEFITS AND NEGATIVES TO THE INDIVIDUAL OF ADOPTING EXPLOITATION PRACTICES / ACTIVITIES

Research Question 2 sought to establish what managers view as the pros and cons of the exploitation (efficiency) activities. This is relevant since solving a dilemma often involves weighing up the pros and cons of competing choices.

5.4.1   Results for Interview Question 1b

How does operating in the exploitation space make you feel?

Question 1b was asked to ascertain participants' overall reaction to exploitation activities to gauge their individual preference for the mode of activities. Feeling themes were categorised determined by the sentiment of the response and informed by non-verbal cues. The results are presented in Table 12.

Eight feelings were identified to describe how personally operating in the exploitation (efficiency) space made managers feel. Feeling themes covered the spectrum of highly positive to highly negative and non-verbal signals were pronounced on both sides.

Table 12: Q1b - How Managers Feel About Exploitation Activities

Rank	Individual Exploitation	Category of feeling	Frequency
1	This is my thing; I feel happy; I feel comfortable	Highly Positive	8
2	It gives me a sense of achievement or accomplishment	Positive	6
3	It's a 'means to an end'	Acceptance	5
3	Repeating the same things makes me bored	Negative	4
5	I have a preference for explore but as a manager you need to balance both; they work together	Acceptance	3
6	I try to spend more time in exploitation	Acceptance	2
7	It is an ingrained way of working for me	Positive	2
8	It's painful (incremental adaptation)	Highly Negative	1

In general, three responses were positive, three responses were neutral (acceptance) and two were negative.

5.4.1.1 This is My Thing; I Feel Happy; I Feel Comfortable

Eight participants described exploitation activities as making them happy or comfortable. Individuals became visibly energised and engaged, learning forward or raising their voice volume and tone. In reflecting their own personalities and preferences participants went so far to say *"Oh it makes me happy. For me I don't even have to think about it"* and *"It is really my thing because I really like the idea of, of keeping things simple... for me, I really like to look for areas we can be quicker, work smarter"*. One extreme response was *"My whole mind-set is efficiency, it's absolutely everything I do…"* they went on to explain *"It comes naturally to me"*.

5.4.1.2 Sense of Achievement or Accomplishment

The second ranked response, also positive, was feeling a sense of achievement or accomplishment. Participants spoke of the results both personally and organisationally of being efficient: *"I get a great sense of achievement… from removing waste and being able to demonstrate value."* Or *"Everyday things I operate in the efficiency side. I like to drive things to completion."* They went on to explain, *"I think with efficiency you feel like you accomplish more, so you feel like… you're getting through things."* Another participant reinforced their feelings of personal productivity *"by continuously doing the same thing, as I learn, I can do more. So, there's a productivity gain."*

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5.4.1.3 It's a Means to an End

By the third ranked 'feeling' participants' visible emotions ranged from acceptance to discomfort, a few participants sighing audibly. A manager explained *"…it does not excite me that much, personally I'd be more inclined to exploration, to innovation, but exploitation provides the stability and predictability [pause] it's less risky and the organisation does not like risk".* Another clarified *"I guess you could say I dislike the process but appreciate the output."* Whereas a third explained *"Me personally, it's the toughest job I have... it's my administration, tough, grudge bear but I like doing it because it gives me confidence back in the business."*

Another manager reflected their changing preference over time *"Personally… 15 years ago I was myself always looking at innovation, 'scrap what you have and try to innovate' but more and more I am trying to be a bit more reflective, 'please let's look how it works right now, what is the way of working, methodologies they use, and based on that, compared to where we would like to be. I think innovation in our company, a lot of people try to be innovative and we don't consolidate this part, we find another solution and then it creates a lot of non-standard things. If you start innovating without understanding the current way of working you never get into the right things. It is dangerous and give a headache by giving multiple directions."*

5.4.2 Results for Interview Question 2

What are the benefits of adopting an exploitation approach?

Question 2 asked individuals about their perceptions of the benefits of exploitation directly. As can be seen in Table 13, 16 benefits were identified by participants. On the whole, participants found it easy to identify benefits with many listing multiple benefits. The top 3 benefits all ranked first with a frequency of eight and are discussed in detail.

5.4.2.1 Enables a Manager to Work Smarter and Make Better Decisions

Eight participants perceived exploitation activities as 'enabling a manager to work smarter and make better decisions'. In particular managers spoke of accuracy, *"… things are not based on anecdotal or emotional 'we did that it worked really well' but rather 'we did this, these are the results..."* Others spoke of root cause analysis *"… What that means is when an outcome isn't the way we want it to be we can reflect on the process and…*

ways of working and look for root causes of issues that have taken us off track and then fix them…"

Table 13: Q2 - Benefits of Exploitation

Rank	Benefits of Exploitation	Frequency
1	Enables a manager to work smarter and make better decisions	8
1	Increases speed of operations and decision making	8
1	Optimisation; Efficiency - reduces waste; increase productivity; do more with less	8
4	It increases (personal and team) motivation, morale and engagement	5
4	It frees up time and resources for 'exploration'	5
6	Provides a catalyst for continuous improvement future projects	4
6	It identifies replication opportunities to unlock value; exponential improvements	4
6	Stability, predictability, reduced risk, increased safety	4
9	Raises managers own credibility regarding delivery	3
10	Enables strategic alignment - Local to Global	2
10	Clearly show shareholders the companies operating efficiently	2
10	Enables compliance to standards	2
10	Enables compliance to or satisfaction of customer needs	2
14	It improves retention of staff	1
14	Creates new learning	1
14	No Benefit to me personally; it doesn't satisfy	1

5.4.2.2 Increases Speed of Operations and Decision Making

Eight participants also highlighted increased speed as a benefit, particularly in Company A (see Table 31, Appendix 7). One manager said *"Quickly respond to 'exceptional events' using an established way of thinking",* another *"Knowing quickly when the business is off track."* When prompted for clarification they went on to explain *"you can then respond or adapt quickly."* Others spoke of the benefit as relative speed saying *"Quicker than competitors".*

5.4.2.3 Efficiency and Related Benefits

The third joint top ranking benefit was identified, also by eight participants, as efficiency and related benefits such as productivity with managers saying *"It takes work away, unnecessary work."* Another went so far to say *"Doing more with less seems to be a no brainer… I think it is a business imperative for us and any other organisation."* Going on

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to personalise they continued, *"Personally, it's the same thing if you are not continually striving to be better then I think you can get into a rut and like I say with the world changing so fast everyone is trying to improve the way we do things... the first time you implement something I don't think it can be the best so you have to continually strive to improve over time."*

5.4.2.4 Other Benefits

Meaningful benefits were assessed to be 'it frees up time and resources for exploration' and 'provides a catalyst for future continuous improvement projects'. Both benefits ranked joint fourth with a frequency of five. A manager explained the first of these two saying *"This is where I believe I am, because I have put enough measures in place to ensure that the efficiency part and current established processes are running well. So I can spend more time on the other [exploration] side. Current situation enables this".* Another explained *"[Exploitation] Helps me reflect on gaps which can be incrementally improved".*

5.4.3 Results for Interview Question 3

What are the negatives of adopting an exploitation approach?

Question 3 asked individuals about their perceptions of the negatives of exploitation (efficiency) directly. Results are presented in Table 14.

Generally, participants had to think more deeply to identify negatives. Many qualified their responses with comments like *"When overdone it can lead to [negatives]…"*. A total of 14 negatives were identified, slightly fewer than benefits and with less consensus. Results by managerial level and company are presented in Table 32, Appendix 7. TMT identified almost twice as many negatives than MM's. The top three ranking negatives, five in total due to equal ranking, are discussed below.

5.4.3.1 Can Stifle Innovation and Creativity

Twice as many company B managers perceived the top rank negative of exploitation being 'stifling innovation and creativity'. All six participants however expressed the negative as a consequence of an over reliance or over focus on exploitation (efficiency). One company B MM claimed *"… it stifles creativity if you become too comfortable, get in the comfort zone and become lazy, becomes routine and mundane, if you stay there too*

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long you become resistant to change and then you become obsolete." Meanwhile another offered their perspective, *"In some cases it almost impacts creativity, so yes the two are linked but driving for efficiency can limited creativity. It's like take what is there already and just make it better, don't think about new ideas."*

Table 14: Q3 - Negatives of Exploitation

Rank	Negatives of Exploitation	Frequency
1	Can stifle innovation and creativity	6
2	Continuous improvement takes time and effort	5
3	It can lead to personal boredom	4
3	It is short to medium term focussed (win now fail later); it inhibits strategic thinking	4
3	Overdone can damage engagement and team motivation	4
6	Leads to incrementalism	2
7	Miss environmental change (internally focussed)	2
8	Can lead to blind replication	1
9	Getting bogged down in processes	1
10	It distracts me from being with customers	1
11	It inhibits critical thinking and rationalisation	1
12	Lack of learning	1
13	No negatives for efficiency	1
14	Processes are not relevant for Africa, market is different and standard ways are not working	1

5.4.3.2 Continuous Improvement Takes Time and Effort

The second ranking negative was 'continuous improvement it takes time and effort' with a frequency of five. All participants were referring to the continuous improvement aspects of exploitation activities. For instance, one manager explained *"It is 'VERY' time consuming in the beginning… You basically have to [go] back to the beginning to analyse where your inefficiencies lie. For the first six months or so you are going to sweat, its hard work, it's frustrating work."*

5.4.3.3 Can Lead to Personal Boredom

With a frequency of four, the first of the three third ranking negatives was 'it can lead to personal boredom. A Manager explained *"… for me, personally, because of the way my personality or my style works I enjoy brainstorming, looking for new ways of doing things. So, for me personally, I think the negatives of having a very large proportion of my role*

being about continuous improvement and just repeating things… that becomes a bit boring." At the extreme, another went so far to say *"being challenged means I don't have to leave… if there is no opportunity to learn left then I get bored and I need to move [company]."*

5.4.3.4 Short to Medium Term Focused; it Inhibits Strategic Thinking

The second of the three third ranking negatives was 'it is short to medium term focused and it inhibits strategic thinking'. Three times as many TMT's perceived this an a negative. A functional TMT went so far to say *"Because of short-term pressure from internal customers we're being forced to exploit when we should be exploring… I can tell you nasty stories about all these processes that we keep making minor changes to, just to keep people happy and we are creating a monster".* Another expressed their concern for strategic thinking saying *"It inhibits strategic thinking, you are not even operational actually because you just become robotic."* And a third, concerned with longevity explained *"You know it can lead to win now fail later."*

5.4.3.5 Overdone can Damage Engagement and Team Motivation

The final third ranking negative was 'overdone can damage engagement and team motivation.' One manager going so far to say *"Efficiency sometimes has negative connotations, at times efficiency is termed as numbers and not people. So, it becomes almost inanimate. Everything is a process, everything is a system… and you forget the people".* Another Company A TMT explained *"It may not be the most inspirational and motivational and may be steeped in the aspects around process and hinting towards bureaucratic, standardisation ...so from an engagement point of view, it might be optimising the machine but it might not [be] optimising engagement and buy in of the team... If this is the only tool in your toolbox, you might not be creating the best place for folk to work".*

5.5   Results for Research Question 3

WHAT ARE THE ENABLING FACTORS AND THE INHIBITING FACTORS THAT INFLUENCE MANAGERS TO ADOPT EXPLORATION PRACTICES?

The aim of Research Question 3 was to identify what factors individual managers perceive as enabling and inhibiting their individual exploration activities and practices. In aim of this, the question sought to establish if the disparate factors identified in the

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literature combined to provide a comprehensive, exhaustive list of influencing factors. In this regard, the question sought to uncover any new insights with regards to factors that have not been identified in the extant literature. Furthermore, with the research objective of establishing a force field analysis the interview questions were developed to identify the most salient and impactful factors achieved through frequency analysis.

Individual exploration (innovation) was defined for the participants as 'Your individual activities that involve seeking new ways of doing things or new knowledge, to achieve step change in performance?' The related interview questions were (9a) what do you see as the factors that enable your own exploration activities? (9b) Which of these factors is the most dominant for you and why? (10a) what are the factors that inhibit your own exploration activities? (10b) Which of these factors is the most dominant for you and why?

In general participants became much more animated and engaged in the exploration section of the interview. Participants appeared to have less difficulty identifying factors on all levels (internal, social and organisational-level factors).

5.5.1 Results for Interview Question 9a

What do you see as the factors that enable your own exploration activities?

This interview question was designed to uncover all factors participants perceived to enable their exploration (innovation) activities. As reflected in Table 15, a total of 29 theme factors were identified, of which 14 were internal, eight organisational, six social level factors. One additional factor shared both an organisational and social-level. Results by managerial level and company is presented in Table 28, Appendix 7. The top three factors and meaningful factors to the research are discussed in more detail.

Table 15: 9a - Enabling Factors for Managers' Exploration Activities.

Rank	Enablers of Exploration	Level	Frequency
1	An innovation culture – at corporate level and within the peer environment	OS	12
1	An empowering Leadership - local and area leadership which encourages risk taking; encourages challenge; forgiving of mistakes	O	12
3	Collaboration & team membership - working with or as part of an engaged, diverse and aligned team (composition, norms, roles and objectives)	S	9
4	Diversity of experience - functional diversity, diversity of exposure, skills and tool development, intuition development	I	7
4	Mind-set and cognitive style – challenging, pioneering, creative	I	7
4	Individuals motivation and ambition - Not being fulfilled with the status quo or current situation); drive to exceed	I	7
4	Learning orientation - personal thirst for insights, learning; curiosity; willing to learn from mistakes	I	7
4	Problem solving skill-sets – analytical, questioning, lateral thinking	I	7
4	Influence and persuasion - gaining buy in from leadership (permission, cash, flexibility)	I	7
10	Contextual dynamics and business results - ahead of plan provides space for exploration; behind plan provides catalyst for exploration	O	5
11	Action orientated - with tenacity and perseverance	I	3
11	KPI's, Appraisals & Recognition - aligned to exploration	O	3
11	Personal Network - strength, diversity, density of relationships	S	3
11	Appropriate Training and Development	I	3
11	Contextual dynamics - Market reality means you can't follow the standard way of working	O	3
11	Delegation – having a team to deliver exploitation	S	3
17	EQ - being self-aware; maturity; having a low ego; knowing your natural abilities; knowing when to collaborate	I	3
17	Having vision and being able to see the bigger picture	I	2
17	Personal risk management - through multiple projects; being prepared with alternatives	I	2
17	Achieving strategic fit and alignment of exploration	O	2
17	Being new – to organisation or role	I	2
22	Mind-set Agility - ability to think strategically and operationally	I	1
22	Collaboration - with external experts and with ecosystems	S	1
22	Continuous Improvement - Methodology and structure	O	1
22	Innovators located within the business stimulates people to think differently	S	1
22	Mentoring and coaching from supervisor or other	S	1
22	My role expectations; being accountable for exploration	O	1
22	Having tolerance of risk on a personal level	I	1
22	Global Strategy	O	1

Key: *Level of factors: I – Internal individual-level; S – Social-level; O – Organisation-level*

5.5.1.1 An Innovation Culture

An 'innovation culture' with a frequency of 12 was the joint top-ranking enabling factor. This factor was discussed in terms of the corporate culture and the sub-culture within the participants' peer group. In discussing the corporate level perspective, one manager stated *"The corporate 'fail often but quickly' [mantra] is really encouraging. I think people are still nervous to fail. But at least you know the company gives you a safety net"*. While another discussed the importance of the sub-culture within their peer group saying *"When my peers are talking about, sharing new ideas, new concepts, I am encouraged to read journal articles, learn as much as I can."*

5.5.1.2 Empowering Leadership

The second joint top-ranking enabling factor was 'empowering leadership' also with a frequency of 12. This factor was discussed from leadership at the local and area level perspective. Linking this enabling factor to the inhibiting factor of personal risk one manager explained *"A personal enabler is being allowed to fail. Or at least… the perception that you're able to fail, otherwise you won't take any risks or try anything new"*. Another explained being encouraged by local leadership to challenge saying *"I challenge… my MD... told me straight, 'South Africa is seen as a small country in the [Company A] world but I don't want you to be overwhelmed. I want you to change things, I want you to challenge'. He gave me confidence…"*

5.5.1.3 Collaboration and Team Membership

The third ranking factor was 'collaboration and team membership' with a total frequency of nine. Managers discussed diversity of skill-sets or perspectives, with one manager explaining *"Engaging with others from the different businesses… roles and functions within the company as well as across the region. Gives more different views".*

Linked to this factor but separate was 'External Collaboration' with one manager saying *"External [I] see a lot of things changing, the biggest change for me… is it moves away from me… providing a solution to me… working with an ecosystem... together because you cannot anymore, alone provide a solution provided tomorrow. Partnering is important...risk sharing becomes important...".*

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5.5.1.4 Other Factors

The next six factor themes were joint fourth, each with a frequency of seven. These factors were all internal individual-level factors and included the following:

- ◦ 'Motivation and ambition' with one manager explaining *"You need to have an intrinsic driver… It's a personal journey… it's how I'm driven."*
- ◦ 'Learning orientation' one manager explaining *"I think it really comes down to how passionate you are about the future , about change, being better…"* and another explaining the personal journey that entails saying *"Because a lot of the things, when you go into new spaces there is no capability in place, for example when I went into my clinics and we added solar and water and things… the problem I am having in order to understand, to control it I have to go through the learning curve to do it, right. So you need to build that, the willingness to say OK, that mistakes, you know next time we not do that mistake we do another one."*
- ◦ 'Problem solving skills' one manager explaining *"… 'if we did do this what would be the outcome', you know it's that questioning and outcome thinking."* While another explained *"Skills needed are creative minds, people who are analytical, understand the market, ability to learn… ability to observe and learn and make the right decisions."*
- ◦ 'Influence and persuasion' with one manager explained *"Having managements ear, influence you know… having someone actually listen, understanding what you saying and then say 'we should look into this'"*
- ◦ 'Mind-set and cognitive style' with pioneering, growth and challenging mind-sets all discussed.

Many managers linked factors in discussion with 'action orientated' joint eleventh with a frequency of three. One manager explained *"I also think it's about rolling up your sleeves and wanting to get the job done, so it's being tenacious. Take ownership, realise that although it's only one piece you need to look end-to-end because it impacts somewhere along the line"*. Another manager explained *"Mind-set of understanding 'if we did do this what would be the outcome', you know it's that questioning, that curiosity."* A TMT observed *"Skill sets for this are not necessarily teachable"*.

'Diversity of experience' was identified as a meaningful factor, mostly to TMT's (see Table 28, Appendix 7). As an observation, the TMT's had longer career histories, diverse backgrounds and in most cases long tenures with the respective company. One manager explained *"my comfort zone is exploitation but my experience and diversity of roles has*

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enabled me to see the bigger picture which has helped me in exploration". Another manager explained further *"throughout your career you're learning new tools and from scenarios to understand different situations".*

A few linked this to their 'personal network' *"It's that networking… building the correct contacts and connections".* Another meaningful factor was 'being new' to a role, one manager saying *"when I was new in this role I spent much more time in the exploration role. That's why I think it's a good thing to change role every 2 or 3 years".* Three managers felt 'delegation' was an enabler for them which offers an important insight for how some managers mitigate the dilemma tensions. One manager explaining *"if I could I'd do 50/50, I'd enjoy it more but I'd need more support… It's linked to the team, having more and more seasoned team to delegate to so that I could explore more".*

5.5.2 Results for Interview Question 9b

Which of the exploration enabling factors you have given me are most dominant for you?

This interview question was designed to identify the self-stated saliency of the identified enabling theme factors. In total eight factors were selected of which three were internal, two organisational, one social and one combination of organisational and social-level factors. Results are presented in Table 16.

Of the dominant factors only one 'contextual dynamics' was not ranked in the top five in question 9a (Table 15). This offered a meaningful insight into how managers may cycle through exploitation and exploration activities the manager explaining *"When you get to the end of the road [with exploitation] and need to try something new to make a step change".*

The top ranked dominant enabling factor, with a frequency of five was 'empowering leadership'. The position of this factor was consistent with the ranking obtained in interview question 9a. In explaining their reasoning one manager explained *"It's about ownership. Give me the freedom to fulfil my responsibilities. Responsibility without authority leads to negativity".* The second factor was 'Innovation Culture' one manager explaining *"…otherwise you're a lone wolf".* The joint third factors were 'collaboration and team membership' with one manager going so far to say *"Everything is a team game in [Company A]"* in explaining his reasoning; and 'Influence and persuasion'.

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Table 16: Q9b - Most Dominant Enabling Factors for Individual Managers' Exploration (Self-Stated)

Rank Q9b	Rank Q9a	Most Dominant Enablers of Exploration (Self-Stated)	Level	Frequency
1	1	Empowering leadership - local and area leadership which encourages risk taking, challenge and tolerate failure	O	5
2	1	An innovation culture - at corporate level and within the peer environment	OS	3
3	3	Collaboration & team membership - working with or as part of an engaged, diverse and aligned team (composition, norms, roles and objectives)	S	2
3	4	Influence and persuasion - gaining buy in from leadership (permission, cash, flexibility)	I	2
5	4	Problem solving skill-sets – analytical, questioning, lateral thinking	I	1
5	4	Individual motivation and ambition - Not being fulfilled with the status quo or current situation); drive to exceed	I	1
5	11	Contextual dynamics - Market reality means you can't follow the standard way of working	O	1

Key: *Level of factors: I – Internal individual-level; S – Social-level; O – Organisation-level*

5.5.3 Results for Interview Question 10a

What do you see as the factors that inhibit your own exploration activities?

In total 19 factors were identified, presented in Table 17. In general, participants found it relatively easy to identify the organisational or social level factors that inhibited their exploration activities. But they found it challenging to identify internal individual-factors. Some managers shared personal reflection about their weaknesses with one sharing *"I am aware I have issues with change agility, it's a struggle for me".*

Eleven factors were organisational, five individual and three social-level. The top three factors, all organisation-level and meaningful factors to the research are discussed in more detail.

Table 17: Q10a - Inhibitors for individual managers' exploration

Rank	Inhibitors of Exploration	Level	Frequency
1	Short-term operational demands of role which necessitate prioritisation of efficiency (exploitation)	O	8
2	KPI's - which are exploitation focused / Reward and Recognition not aligned to exploration	O	7
3	Structural Complexities	O	5
4	Gaps in personal abilities, skills and/or inexperience	I	4
4	A risk averse corporate culture	O	4
4	Lean resources - capacity issues	O	4
4	MNE Globalisation exploitation strategy	O	4
8	Lack of local senior leadership support for innovation	O	3
9	Change resistance resulting from asking people who want to follow standard process to do something different	S	2
9	Micromanagement	S	2
9	Missing Methodology, Frameworks and sharing platforms	O	2
9	My role and/or business does not offer flexibility for radical change	O	2
9	Fear of failure - individual risk aversion	I	2
14	Internal recruitment restrictions	O	1
14	Lack of effective Change Management approach for buy in	I	1
14	Lack of networks and influence	I	1
14	The egos of others	S	1
14	Personal struggle with Change Agility	I	1
14	Environmental crisis and ensuing re-prioritisation of short term (Contextual dynamics)	O	1

Key: *Level of factors: I – Internal individual-level; S – Social-level; O – Organisation-level*

5.5.3.1 Short-term Operational Demands

The top-ranking inhibiting factor was 'short-term operational demands' of the participants' role which was felt necessitate them to prioritise efficiency. Eight participants selected this factor of which the majority were TMT (see Table 29, Appendix 7). This factor highlights a significant tension for participants with one TMT saying *"There is just too much flow on the operational exploitation side… capacity [demands] on the role. There is a time element. Exploration is helped by more space and time so the pace of the role throws you into exploitation"*. Another TMT explained *"In my personal role, the messaging that was given to me downwards was to invest very strongly in growth. Exploration. The issue is that there should have been more of a balance with exploitation... in terms of the messaging."* He went on to explain that due to missed targets short term pressures returned and the focus was shifted.

5.5.3.2 Exploitation Focused KPI's

The second factor of 'KPI's which are exploitation focused' is related to the top-ranking factor. Seven participants selected this factor, again the majority being TMT (see Table 29, Appendix 7). Referring to a recent employee survey one TMT reflected *"One thing that really shouts it out from the results is how disconnected what we are telling people and what we are measuring people on".* Another TMT highlighted the implicit nature of exploration KPI's saying *"[exploration] is not formally encouraged [through KPI's] but there is a cultural expectation that this is the way we operate but it is not formalised in expectations".* One TMT highlighted the tension created for middle managers explaining *"Many times we have a criticism where we criticise middle managers for being the roadblock [for exploration projects] but as long as you drive them on quarterly targets, and that's what you have to do because of shareholders etc, they will hit that because that's what affects his career right."*

5.5.3.3 Structural Complexities

The third factor, with a frequency of five, was identified as 'structural complexities'. Most managers spoke about silos and approvals as the inhibitors. One manager explaining *"when it impacts multiple people you have to get the right approvals, budgets people everything approved in advance… if you're not the one seeing the benefit it's easy to say this is not worth my time."* Another went further becoming visibly frustrated they said *"in the support functions there are some very sort of, blue [insights colour profile] people… the hoops that you have to get through to, to actually get the operational elements through".*

5.5.3.4 Other Factors

Three additional factors were deemed meaningful. The first, 'gaps in personal skills, abilities and experience' was the first individual level factor, ranked joint fourth with a total frequency of four. Most participants actually projected this inhibitor on to others or even the country with one saying *"I don't want to use it as an excuse but I think it's country wide, getting people to the right level, of getting people to thinking at the forefront… we're struggling with some of the fundamentals so even consider cutting edge stuff it won't work because we don't have the right skills to implement that cutting-edge stuff".* Most managers when probed said they had the necessary skills for exploration or supplemented them with tools or collaboration. This may be reflective of a self-serving attribution bias (Robbins & Judge, 2015).

The second was the MNE exploitation strategy. This organisational-level factor also ranked joined fourth with a frequency of four. One manager explained *"… you don't want to be seen as a country who is deviating too much, there is a benefit but you are not following global standards.* Another said *"I think… globally there is an expectation that [employees] should be exploring but locally it's about exploitation".* One MM went so far to say *"Because the exploit part is driven so hard at [Company A]... I don't think the exploration of new fresh ideas... is done, I don't want to say efficiency is done at the expense of [innovation] but sometimes that's how it seems…".*

Another meaningful factor was a personal fear of failure. Identified by two managers with one saying *"… The learnings you know… you have to be more open to failure also and I think that's why I'm are more comfortable with the efficiency"* they went on to explain *"Failure is performance managed not celebrated as a learning opportunity".* Another manager explained *"Emotionally I am wired to succeed… you want to be recognised for successes not failures."*

5.5.4 Results for Interview Question 10b

Which of the exploration inhibiting factors you have given me are most dominant for you?

This interview question was designed to identify the self-stated saliency of the identified inhibiting theme factors. In total nine factors were selected, of which only one was internal individual-level and two social-level with the balance organisational-level factors. As can be seen in Table 18, ranking changed substantially with only one top three consistent across Q10a and Q10b.

Lean resources presenting capacity issues was the top-ranking factor with a frequency of three, all from Company A (see Table 29, Appendix 7) The reasons given were *"It's the company's biggest struggle"; "Year on year we're going more negative than positive";* and *"Capacity is drained, there's too much to do… and on boarding new people takes time".* One manager explained *"… we are very stretched… this is South Africa"* in talking about being a triple hatter *"… I have more than one job, more than one team and more than one task where do I focus my energy? Where I am guaranteed [return for effort]".* This provides a useful insight to tensions and trade-offs made by managers. Another manager saw lean resources slightly differently saying *"… but I wouldn't say time*

because you make time when you are passionate enough." Another stated *"… delegation is important [in this context]."*

Table 18: Q10b - Most Dominant Inhibitors for Individual Managers' Exploration Activities (Self-Stated)

Rank Q10b	Rank Q10a	Most Dominant Inhibitors of Exploration (Self-Stated)	Level	Frequency
1	6	Lean resources - capacity issues	O	3
2	5	A risk averse corporate culture	O	2
2	3	Structural Complexities	O	2
4	1	Short-term operational demands of role which necessitate prioritisation of efficiency (exploitation)	O	1
4	2	KPI which are exploitation focused / Reward and Recognition not aligned to exploration	O	1
4	9	Change resistance resulting from asking people who want to follow standard process to do something different	S	1
4	13	Personal Fear of Failure	I	1
4	19	Contextual dynamics - Environmental crisis	O	1
4	10	Micromanagement	S	1

Key: *Level of factors: I – Internal individual-level; S – Social-level; O – Organisation-level*

A risk averse corporate culture was the second ranking inhibitor with two responses One manager offered an interesting cultural perspective *"people locally find it hard to follow autocratic leadership... performance is stifled, engagement is low… SA people find it hard to follow that kind of leadership, hard because it stifles them".*

5.6   Results for Research Question 4

WHAT ARE THE PERCEIVED BENEFITS AND PERCEIVED NEGATIVES TO THE INDIVIDUAL OF ADOPTING EXPLORATION PRACTICES?

Research Question 4 sought to establish what managers' view as the pros and cons of exploration (innovation) activities. This is relevant since solving a dilemma often involves weighing up the pros and cons of competing choices.

5.6.1 Results for Interview Question 6b

How does operating in the exploration space make you feel?

Interview Question 6b was asked to ascertain participants' overall reaction to exploration (innovation) activities to gauge participants' individual preference for the mode of activities. Nine 'feeling themes' were identified to describe how personally operating in the innovation and exploration space made managers feel. The results are presented in Table 19. The category of feeling themes was determined by the sentiment of the response and informed by non-verbal cues.

Feeling categories ranged from highly positive to negative. The top three ranking feeling themes were all positive with the top two highly positive. Of the remaining of feelings five were positive and two were negative. No feeling themes were neutral. The categories of feeling were expressed by both managerial levels and across both companies.

Table 19: Q6b - How Managers Feel About Exploration Activities

Rank	Individual Exploration	Category of feeling	Frequency
1	I feel Energised, engaged, challenged and/or excited	Highly Positive	8
2	Love working here (in the exploration space)	Highly Positive	7
3	I feel like a challenger of the status quo, thinking outside the box	Positive	4
4	I feel less comfortable here	Negative	3
5	I feel frustrated	Negative	2
5	I feel Fulfilled	Positive	2
5	I want to spend more time in this space	Positive	2
6	The team interaction is great (during exploration)	Positive	1
6	I feel I want to change jobs (due to being unfulfilled in this area)	Positive (negative about current)	1

With a frequency of eight 'I feel energised, engaged, challenged and/or excited' was top followed by 'Love working here' with a frequency of seven. One highly positive manager spoke of their ability to cascade energy and inspiration through their team saying *"I feel energised and it help me cascade that energy and get the team inspired"* others spoke of exploration as a representation of their personality or orientation saying *"it's my spirit"* or *"I love this space, I'm a future person"*.

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An important insight from a particularly extreme response demonstrated the discomfort that can be created when a personal preference for exploration is not aligned to their current activities or role requirements. Saying "*I feel I want to change roles, that's how much I feel about it*" the manager reflected on how their current role was too exploitative and repetitive previously commenting on exploitation "*How you feel I think speaks to your personality, if you get bored quickly, [exploitation is] a problem. So, I do, so the repetitive things, bores me*".

Two negative feeling themes were identified. With a frequency of three 'I feel less comfortable' ranked fourth. One manager explained "… *you know you have to be more open to failure also and I think that's why [I am] more comfortable with the efficiency.*" Another explained their need to find their own balance from a stability and predictability perspective, saying "*[As] part of what I'm doing… that's OK, but if it's something I had to spend all day every day doing it and be at the risk taking, peering over the edge then I think that would traumatise me… completely white space is a bit scary*".

The other negative feeling theme, ranking joint fifth with two responses was 'It can be frustrating'. A Manager explained "*I have a battle on a daily basis with [global] management that many of them don't get it. They still look at it in the old way of this is the way, they look at it as a stand-alone business case versus an integrated picture. They look at an individual case which shows a certain return… while the other one has a longer return [period] therefore from a decision making it's very different so there are the challenges you have in the journey*...".

5.6.2 Results for Interview Question 7

What are the benefits of adopting an exploration approach?

Question 7 asked individuals about their perceptions of the benefits of exploration (innovation) directly. Ten benefits were mentioned by participants and are presented in Table 20. On the whole, participants found it easy to identify benefits.

5.6.2.1 Enables Personal Development and Learning

The top-ranking benefit with a frequency of nine was 'enables personal development and learning'. Managers spoke of stretching personal boundaries and feeding personal change. One manager explained "*When I look back after a project and think I just didn't realise how little I knew*". While another said "*I went into the journey from a personal*

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learning experience. You have to be clear on that one if not it's very frustrating."; a third simply stated *"Personal learning is high, which feels good".*

Table 20: Q7 - Benefits of Exploration Activities

Rank	Benefits of Exploration	Frequency
1	Enables personal development and learning - stretching personal boundaries, feeds personal change	9
2	Keeps business ahead and relevant; provides leapfrog performance	6
2	Provides a sense of accomplishment, recognition and delivers success - for the business, the individual and your team	6
4	I feel more energised, engaged, motivated and committed	5
5	Prevents getting caught up in the efficiency cycle	3
5	Spurs exploitation opportunities	3
5	Enables more effective team engagement - Gets the team energised, cascade passion	3
8	Enables attracting and retaining the right talent	1
8	Spurs further exploration - facilitates cross fertilisation	1
8	Is future orientated	1

5.6.2.2 Keeps Business Ahead and Relevant

A second ranking benefit with a frequency of six was a benefit to the business of 'keeps the business ahead and relevant.' Managers spoke of 'game changing', 'moving ahead of the curve' and 'creating advantage over competitors' with one manager explaining *"It keeps the business ahead, well up to date but try to be better and one step ahead of the competitors… and relevant you know the market is changing so you can't just keep doing the same thing.".*

5.6.2.3 Sense of Accomplishment, Recognition and Success

A joint second ranking benefit with a frequency of six was 'Provides a sense of accomplishment, recognition and delivers success'. Managers discussed this from a personal, company and team perspective. One manager summing up *"The whole success element… If you made to get it right it's the business success, it's individual success, you end up with happier teams, with happier people."*

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5.6.2.4 Other Benefits

Other benefits included 'feeling more energised, engaged, motivated and committed'. Five managers saw this as a benefit one managers explaining *"It stimulates you, I feel it brings some energy & excitement to what you do, it increases the level of commitment to whatever you undertake"*. For some managers, this linked to the joint fifth ranking benefit of 'enabling better team engagement'. One TMT going so far to say *"if a manager limits themselves to exploitation they are a hopeless team leader"*. An MM expanded *"I think that innovation, exploration, risk taking is a great space to be in. The reason for me saying that is that it is more engaging for people. From a team dynamics perspective, they are really involved, [I] make them part of the process. The opportunity for bonding with the team, getting their buy in for how things can be… There are cases when you need to look at things as an individual, 'how can I change this', but the part of this that makes it a preference for me is the team engagement"*.

5.6.3   Results for Interview Question 8

What are the negatives of adopting an exploration approach?

Question 8 asked individuals about their perceptions of the negatives of exploration directly. Eight negatives were mentioned by participants and are presented in Table 21. On the whole, participants found it easy to identify negatives however two managers actively claimed not to see any negatives on a personal level. Frequency results by managerial level and Company are presented in Table 35 in Appendix 7.

Table 21: Q8 - Negatives of Exploration Activities

Rank	Negatives of Exploration	Frequency
1	Can create chaos and/or loss of focus	11
2	It introduces risk and uncertainty - the impact of failure is much greater than with exploitation	6
3	Learning and efforts are not recognised in this space	4
4	Takes time; spend too much time	2
4	Creates change conflict	2
4	It's frustrating on a personal level - it's painstaking and high effort	2
7	Discovering certain parts of your personality you don't like	1
7	Costly in a small market	1

5.6.3.1 Can Create Chaos and/or Loss of Focus

The top-ranking negative of exploration activities, with a frequency of 11, was 'can create chaos and/or loss of focus'. Almost twice as many TMT perceived this negative than MM's (see Table 35, Appendix 7). One TMT spoke about the personal impact saying *"Sometimes I try to do too much of [exploring], there's only so much you can do in a 12 or 14 hour day… this had a major impact on my personal life…"* while another spoke on the impact for their team saying *"Sometimes I do loose a bit of focus, I have to prioritise and check myself... Hey wait I've got this team off on a tangent".* Another manager discussed the negative from the perspective of change management and balance *"Constant exploration becomes too disruptive but... it depends on [your] change management."* Going on to explain they said *"You need a period to settle and exploit."*

5.6.3.2 It Introduces Risk and Uncertainty

The second ranking negative, with a frequency of six, was "it introduces risk and uncertainty' this was almost exclusively mentioned by TMT's (see Table 35, Appendix 7). The negative was discussed from the perspective of risk to the individual and the business. One went so far to say *"If you want to make a career in a [MNE] company stay on the efficiency [exploitation] path... because this one is the safe one, the innovation [exploration] path is a very uncertain journey [for the individual]."*

5.6.3.3 Learning and Efforts are Not Recognised

The third ranking negative, with a frequency of four, was 'learning and efforts are not recognised.' This was a source of frustration for participants, all of whom were from Company B (see Table 35, Appendix 7). One manager shared their frustration saying *"Africa is a difficult market because it is demanding in terms of what you need to deliver but at the same time it is not rewarding, because you can go the extra miles but you don't get the recognition for that because it's a difficult and shitty market. The result does not come through, so they don't appreciate the effort or reward it, but the market is difficult...".* A potential reason was offered by another who explained *"... the majority of my metrics are about exploit. Because I think the organisation has found it far harder to give me metrics about explore... because I think it's difficult to measure that. …So it's a bit frustrating… what you don't get is the credit for thinking outside the box and doing things differently to get the KPI's delivered you only get the credit when the KPI is delivered. …there is not a massive benefit for me of doing explore stuff other than [when] the explore stuff helps me deliver the exploit stuff."*

5.7   Results for Research Question 5

WHAT ARE THE TRADE-OFFS BETWEEN EXPLOITATION AND EXPLORATION?

Research question 5 sought to identify the trade-offs managers perceive necessary when solving the dilemma of exploitation (efficiency) and exploration (innovation).

5.7.1   Results for Interview Question 11

What do you believe are the trade-offs to be made by individual managers in pursuit of managerial ambidexterity?

Interview question 11 was designed to identify the trade-offs managers perceive necessary to solve the dilemma of exploitation (efficiency) and exploration (innovation). Linked to this, the question sought to identify how managers perceive these tensions. Nine trade-offs where identified in total and are presented in Table 22.

Table 22: Q11 - Perceived Trade-offs to be Made by Managers in Pursuit of Ambidexterity

Rank	Trade-offs		Frequency
	Exploitation (Efficiency)	**Exploration (Innovation)**	
1	Now (short-term)	Future (long-term)	10
2	Less time and effort	More time and effort	8
3	Known territory (Routine, predictable, less risk)	Unknown territory (Unpredictable, more risk)	5
4	Group	Individual	2
5	Team Motivation (well run)	Team Motivation (making a difference)	1
5	Dictated agenda	Own agenda	1
5	Global product standardisation	Local adaptation in innovation	1
5	Focus	Fluid	1
5	Measurability is easy (tangible impact)	Measurability is difficult (intangible impact at first)	1

The top-ranking trade-off, identified by ten managers, was 'now (short-term)' versus the 'future (long-term)'. A larger proportion of TMT recognised this trade off than MM's (see Table 36, Appendix 7). One manager explained *"In the company, there is a huge tension… delivery against [activities] that give me money [now] for [future] investment."* They went on to explain *"there is a dilemma between short-term and long-term you need to solve."*

The second ranking trade off, identified by eight managers, was 'less time and effort' versus 'more time and effort' one manager explaining *"There is a trade off on energy, it's what matters most to me at that time, where is the benefit and what is the best benefit I am going to get from that decision, so there could be things that are urgent to everybody but I have to make the call that, that's not important right now".*

The third factor with a frequency of five, three MM and two TMT, was known territory versus unknown territory which presents varying levels of risk. Together these trade-offs link to inhibitors of exploration discussed by managers in section 5.4.3. namely short-term operational demands, lean resources and exploitation KPI's.

Three MM's explicitly expressed that they couldn't see the choice as a trade-off, rather viewing the mode of activities as interlinked or mutually enabling. One manager saying *"I can't see it as a trade-off. It's a circle, they fuel each other."* Another saying *"But I don't see, I don't actually see any lines between the two so I don't see the necessity for them to be mutually exclusive".*

5.8   Results for Research Question 6

Can managers achieve ambidexterity (i.e. simultaneously achieve high exploitation and high exploration practices) to improve organisational performance?

Research Question 6 sought to establish managers perception of the relationship between the two modes of exploitation and exploration and how they reconcile the tensions and conflicting demands of the dilemma. That is, if managers use a trade-off perspective of either/or solutions that require balance or the paradoxical perspective of both/and solutions that require combination between exploitation and exploration is. Furthermore, the research question aims to identify if managers view and ultimately resolve tensions differently depending on their management level.

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5.8.1 Results for Interview Question 12

a) Please indicate what you believe is the most appropriate balance of time, as a percentage, an individual manager at your level should be spending between exploitation and exploration.

b) Where do you think your current balance of time, as a percentage, is spent between exploitation and exploration.

This interview question was designed to identify how managers perceive the relationship between exploitation and exploration poles and what managers see as the appropriate level of balance.

All eighteen managers believed that it was not only possible but essential for an individual manager to achieve a balance between their exploitation and exploration activities. In discussion, over 80% of managers describe the balance needed as being situational such as depending on role requirements, project requirements, seniority and therefore accountabilities, needs at that moment and the context of business performance. Another theme to emerge was the influence of the individuals' preference or attitudes towards either mode on balance. One TMT saying *"I have a proper hatred of [Company A] systems so I should be here [70% exploration]."*

5.8.1.1 Current Balance

The results of managers current balance, presented in Table 23, identified the average balance as 66% exploitation and 34% exploration, with a wide array of current balance identified. The top-ranking 'current balance' with a frequency of six was in favour of exploitation (efficiency), balanced 70% exploitation, 30% exploration. Only one manager said they were currently not balanced at 100% exploitation (efficiency), explaining his project based role demanded it of him at present.

MM level managers spend 73% of time on exploitation, on average, versus 61% for TMT level managers. In addition, the maximum level of exploration for MM was 30% versus 70% for TMT. Three quarters of MM identified their balance in favour of exploitation (efficiency) at between 70-90% exploitation. Conversely, only 60% of TMT managers identified their balance in favour of exploitation. Furthermore, three TMT identified their balance of time in favour of exploration (innovation), balanced at 30% exploitation and 70% exploration. No MM identified in favour of exploration (see Table 37, Appendix 7).

Table 23: Q12a - Managers Current Exploitation - Exploration Balance

Rank	Ideal Balance		Frequency
	Exploitation	Exploration	
1	70	30	6
2	30	70	3
2	80	20	3
3	90	10	2
3	50	50	2
5	60	40	1
5	100	0	1

5.8.1.2 The Ideal Balance

The ideal balance, in percentage of time, also varied considerably and across management level. For a TMT the balance ranged from 30 exploit / 70 explore to 80 exploit / 20 explore. The most frequent response was 30 exploit / 70 explore with four responses, more than self-stated actual time balance. Some examples of the rationale given by TMT are provided below:

- **30 exploit / 70 explore:** *"People at my level need to be future focused while the [middle] managers should be running efficiency"*

- **30 exploit / 70 explore:** *"My dashboard means I have space to focus on exploration; experimenting; searching for new solutions… It's situational so 30/70 with my green dashboard. 50/50 is more appropriate with a red dashboard and 70/30 in crisis mode".*

- **40 exploit / 60 explore:** *"My role demands me to explore but if you have no process you have anarchy".*

- **70 exploit /30 explore:** *"We have a responsibility as [TMT] managers to deliver the global footprint for [Company A]. We have an operating plan to deliver for our shareholders".*

For the MM the ideal balance also ranged from 30 exploit / 70 explore to 80 exploit / 20 explore. However, the most frequent response with four MM's was 70 exploit / 30 explore, a complete reverse of TMT. Some examples of the rationale given by MM are provide below:

- **80 exploit / 20 explore:** *"You have to prioritise, understand what your goals are this is the number one priority and don't get distracted. People find it hard to say no… I don't work on possibilities I work on priorities."* Going on they explained

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"It's also my preference, I will exploit for as long as I can, with regard to business model… if we go and change that we put millions at risk."

- ◦ **70 exploit / 30 explore:** *"Well it depends on your position. In my position, I can't risk spending all my time learning and exploring. I need to achieve results in the short term while having some focus on the strategic long term… Its going to take time for the new to come"*

5.8.1.3 Perceived Relationship Between Poles

The thematic content analysis of the discussion around the concept of balance of time generated the following data in Table 24.

Table 24: Perceived Relationship Between Exploitation - Exploration Modes

Rank	Relationship Between Modes	Total	TMT	MM
1	Competing Modes – trade-offs resources, time, effort	6	4	2
1	Independent - cycling, situations	6	2	4
3	Complementary - mutually enabling	5	3	2

5.8.1.4 Competing Modes

The majority of managers with a significant gap in their current and desired state talked generally about the trade-off of resources, time and effort and the business or functional pressures they face. Six managers, a third of the sample, discussed the poles as competing for resources. Despite this all managers felt there should be a balance. One TMT explained this saying *"…but you can't park exploration. You have to get the balance… they steel from each other but you have to have both."*

Four managers spoke of using the team strengths or delegation, one MM saying *"I could use better management of my time to move to the [exploration side]. I think I need to empower my team to take care of the [exploitation] items that are sitting too much with me. For me the exploration is more the strategic side and that's where I would need to free up my time."* A TMT echoed this saying *"People at my level need to be future focused while the [middle] managers should be running efficiency".* Another MM said *"If I could I'd do 50/50, I'd enjoy it more but I'd need more support… It's linked to the team, having more and more seasoned team to delegate to so that I could explore more".*

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5.8.1.5 Independent Modes

Six managers articulated the relationship as independent with one MM saying *"I think, to be able to have some level of sanity… this exploitation brings you down, it's your resting place, your standardised way of working, and then to be able to get out of the box, which you can't always be out of the box you definitely need both. You can't always be innovating, I almost want to say it's ridiculous, you need this exploitation as much as you need the other".* Four managers explicitly described taking time bound decision about which mode to use. A MM explained, *"You definitely need both but it depends on the nature of the job and the task at hand".* While a TMT explained *"I'm always playing on both sides, in my department we do what-ever makes sense at the time"* providing evidence of temporal separation. Another TMT explained how he shifted his balance according to business pressures *"My dashboard means I have space to focus on exploration, experimenting, searching for new solutions. [current balance is 30/70] but that's with a green dashboard. 50/50 with a read dashboard and 70/30 in crisis mode such as forex, recession, companies leaving SA…"*

5.8.1.6 Complementary and Mutually Enabling Modes

Five managers viewed the modes of exploitation and exploration as complementary and the relationship a mutually enabling. One MM in Company B saying *"… CI [continuous improvement], fuels both of these. [CI] fuels efficiency to drive people to hit targets set out for them, but also drives exploration, so you need a culture of CI to drive both. In [Company B] we had a team driving this using root cause analysis and 5 why's, you could call them in, that methodology is an opportunity for innovation, it's very structured but it allows you to explore different approaches to solve problems."* This was echoed by a TMT in Company B using another example explaining *"It's not mutually exclusive, even creativity needs project management [and routine]".*

Another MM had previously explained *"The repeating of [exploration] then flips over back to exploit. You've done something dynamic, it's now become exploitation, but also you want to go back into explore to try to do something again".* Another TMT shared how implementing an exploitative process helped him lead exploration *"Exploration activities can lead to drain on resources… So, you got to make sure that you cull the stuff that are going to fail very rapidly, so you need a clear structure in place that you assess where you're investing.. this is [what I achieved] with the incubator board. I needed an exploitative process to evaluate exploration activities... you need a continuous decision-*

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making process to understand if we are going to continue doing this or are we going to cull".

One TMT started challenging their own perspective, saying *"[this is my balance because] Demand, have to get it done. Also, maybe if [I] spent more time being innovative [I'd] be more efficient, but if you don't have time you get stuck in the rut. It's like the delegation dilemma when you're too busy to delegate so you never get less busy."*

5.8.2 Results for Interview Question 14

Alternatively, can you combine exploitation and exploration activities as represented in the diagram?

This question was designed to establish how managers can resolve the tensions of the dilemma of exploitation and exploration. Participants were asked if they felt it was possible to combine activities and then asked to plot their current position and the position for maximum impact, then asked to explain their responses.

All 18 participants agreed that it was possible to achieve a hybrid combination of exploitation (efficiency) and exploration (innovation) at an individual managers level. Although there was variation on what was deemed as the optimal combination. The majority of participants said the most impactful combination was dependent on the situation or context dependent. Less than a third of participants felt it was difficult to do this. Reasons given related to trade-off tensions such as time, effort and short-term objectives.

Figure 6 plots TMT responses and Figure 7 MM responses. Both charts show the participants starting place (current combination) and where they see having the greatest impact.

Figure 6: Both/and Combination of Exploitation and Exploration (TMT)
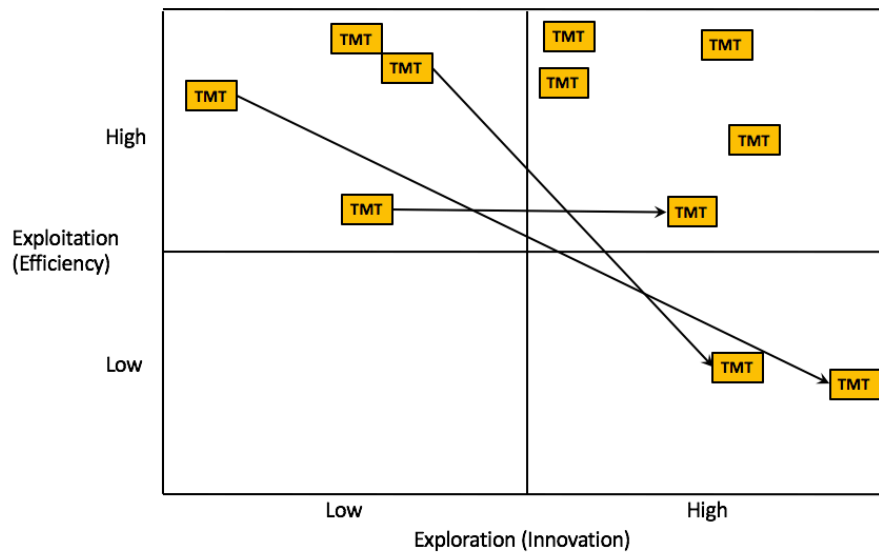
As can be seen in figure 6, five of the eight TMT participants felt they were already operating with the most impactful combination. Of those, 80% were utilising a high/high combination. The high efficiency / low innovation static TMT explaining *"For the market it is right. For a small market efficiency is right".* Of those moving for impact, two thirds (2 TMT's) moved themselves from high efficiency / low innovation to low efficiency / high innovation. Both explained that corporate initiatives had the objective of streamlining the exploitative activities. One manager saying *"For me ideally… with all the corporate initiatives and all the business support functions and all the business transformation and all that, I would like to eventually be in a low exploitation and a high exploration phase. Because you would know that all the processes and that were being exploited and they are streamlined and they are as good as they are going to get for a period of time and you don't actually have to worry about that you can focus on something else."*

The remaining TMT moved from high efficiency / low innovation to high/high. They explained contextual antecedents were needed saying *"I would say [I am] high exploitation and low exploration. [Today?] Yes. Where I would want to be is high, high [and do you think that is possible…. In terms of what you currently do on a day to day basis?] Yeah, I think if you get the basics right, the market growth comes back, meaning market external growth, right, GDP booming, EBITA is growing. So, if the external environment is more constructive I think it is possible to get back to this."*

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An interesting perspective was offered by an TMT in a function, saying "*Actually we don't look at this matrix when we think... what I'm trying to say is that by definition we go like this [low/low up to High exploitation/low exploration, and then only come across [to high exploitation/high exploration] when we don't get a good result. We say 'guys I don't think it's going to work in a redesign [exploitation], what about if we look at another way' and then we start there with innovation, its dynamic, moving, you see*".

As can be seen in Figure 7 all but one MM felt for maximum impact a middle manager needed to achieve a high/high combination of exploitation (efficiency) and exploration (innovation) activities.   The majority of MM would like to increase their levels of exploitation but not at the expense of exploration to be most impactful.   The most common response was related to delegation or team composition.

Figure 7: Both/and Combination of Exploitation and Exploration (MM)
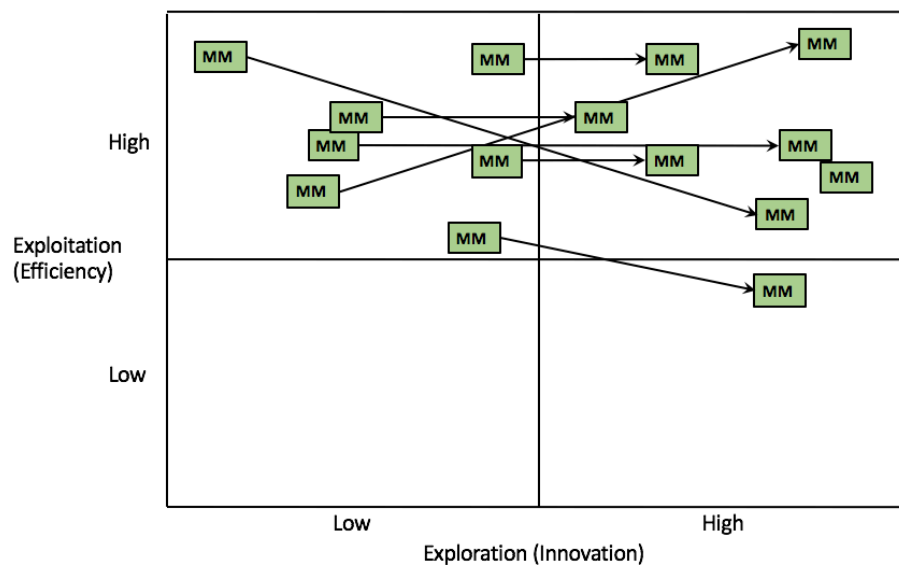
Only one MM felt they were already in the right combination for impact explaining *"… I am balanced… in this high, high quadrant, and I think that's purely from my style of management, I would say high exploitation, results driven, want to achieve those targets, that type of thing. But also, high exploration because wanting to bring change to established processes, procedures, the sort of working recipes. You need a high level of exploration to want to do that."* They went on *"also because I am new as well. Well… about 8 months now, but still fairly fresh in the organisation. It's easy to fall [high exploitation, low exploration] here once you are 5 years down the line, you know your*

energy level falls, but any individual that's fresh in an organisation, that has a good culture behind him, you almost forced to stay in this space [which is the high, high] yes."

All but one MM saw high/high as the optimal combination with remaining MM moving to Low exploitation / high exploration, with reasoning aligned to corporate initiatives streamlining exploitation activities across the company.

5.8.3 Results for Interview Question 15

What competencies do you believe enable a manager to achieve managerial ambidexterity?

Interview question 15 was designed to identify the competencies individual managers saw as being necessary for a manager to achieve ambidexterity at an individual level. As seen in Table 25 13 competencies were identified. The top four are discussed in more detail.

Table 25: Q15 - Competencies Needed for Managerial Ambidexterity

Rank	Competencies for Managerial Ambidexterity	Frequency
1	Problem solving leading to change management	15
2	Team leadership - team building, engagement, development, recruitment	14
3	Influence and persuasion	8
3	Emotional intelligence (EQ) - Being self-aware	8
5	Business savvy	6
5	Balanced risk taking	6
5	Adaptive leadership	6
5	Being alert to opportunities - proactive readiness, intuition, initiative, customer and insight orientated	6
9	Mind-set flexibility - possessing a growth and continuous improvement mind-set and being able to switch between mind-sets	5
9	Learning orientation	5
9	Results and success orientated	5
12	Prioritisation and focus	3
12	Structured and methodical approach	3

The top-ranking competency, with a frequency of 15, was 'problem solving leading to change management'. One manager explained *"I think a lot of it goes into being able to identify what the current challenge is. So [that] you know how to define the context you are in, so if you know whether it's efficiency or innovation [that's needed in the context].*

I think one is basically where you pay attention to detail." The competency was discussed as a broad set of skills and thinking styles including being analytical, evaluating alternatives, being creative yet able to following a roadmap and capable of lateral thinking.

The second ranked competency with a frequency of 14 was 'team leadership'. It was discussed from a range of angles such as engagement and collaboration with both direct and indirect teams, team building, team performance management, recruitment for team diversity and capabilities and team development. A number of managers felt being ambidextrous was all about a team effort, one manager explaining *"To be ambidextrous you need to create a strong team to implement the [spectrum] of changes and to work with you to improve the organisation both exploring new ideas and then improving those changes".* In addition, the competency was discussed from a performance management perspective, one manager saying "… *your ability to build relationships, your ability to drive a team, motivating, rewarding. So, performance management".*

The joint fourth competency, with eight responses, was 'influence and persuasion'. One manager spoke of upward and horizontal management, saying *"… you have to influence central team to support [you]".* The other joint fourth-ranking competency identified was 'emotional intelligence (EQ)'. With regard to EQ one manager's perspective was *"If you break it really down on the how you take people with you it has a lot to do with emotions… Emotional intelligence is a core thing at the end of the day, more and more actually".* While another suggested "A level of maturity is need and an ability to trust, believe that… my team are able to get the efficiency side done…".

5.9   Conclusion on Findings

The results of the seven research questions presented in this chapter demonstrated support for the existing literature regarding the dilemma of exploitation and exploration and for the ambidexterity literature. In addition, the results highlight key insights for organisations to better understand their individual managers' exploitation and exploration dilemma.

CHAPTER 6: DISCUSSION OF RESULTS

6.1   Introduction

In this chapter, the research findings presented in Chapter 5, are discussed in detail and in light of the literature presented in Chapter 2. The research questions, presented in Chapter 3 and the aligned interview questions, presented in Appendix 1, were informed by the existing literature and formed the basis of this study.   Data was gathered from 18 in-depth, semi-structured interviews with Top Management Team (TMT) and Middle Managers (MM) in two MNE South African subsidiaries. The data coding and analysis allowed for the aggregation and refinement of the data, providing insights into understanding the management dilemma of exploitation (efficiency) and exploration (innovation).

The dilemma of exploitation and exploration in general and Individual Managerial Ambidexterity is not an elusive concept entirely. As such the relevance of the results pertaining to the relating literature are explored in the following sections.

6.2   Discussion of Results for Exploitation

Research Question 1 sought to identify the factors that individual managers perceive as enabling or inhibiting their individual exploitation activities and practices to achieve efficiency. Specifically, interview question 4a sought to identify the factors managers perceived as enabling their exploitation activities; and interview question 4b sought to identify which of those were dominant. Conversely, interview question 5a sought to identify the factors managers perceived as inhibiting their exploitation activities; and interview question 5b sought to identify which of those were dominant. Salient factors were determined from the frequency analyses of results from interview questions 4a and 5a (Table 8 and Table 10), interview question 4b and 5b (Table 9 and Table 11) and meaningfulness analysis conducted during thematic content analysis. The output of these analyses is explained in each section.

Research Question 2 sort to identify the perceived benefits and perceived negatives to the individual of adopting exploitation practices. Specifically, interview question 2 sought to identify the benefits and interview question 3 the negatives of adopting exploitation activities for a manager. This research question is relevant since solving a dilemma involves the individual manager weighing up the pros and cons of competing choices. The following sections discuss the findings from the research in light of the literature.

Figure 8 illustrates a summary of the research findings pertaining to research questions 1 and 2 for exploitation. Based on the seminal works of Kurt Lewin (Louw, Sutherland, & Hofmeyr, 2012; Swanson & Creed, 2014) the salient and meaningful enabling and inhibiting factors influencing individual managers' exploitation are depicted in a force field analysis. As represented on the horizontal axis in Figure 8, high forces of inhibiting factors restrict the individual pushing their activities towards low levels of exploitation while high forces of enabling factors push the individual towards high levels of exploitation.

Figure 8: Findings – Factors Affecting and Outcomes of Exploitation
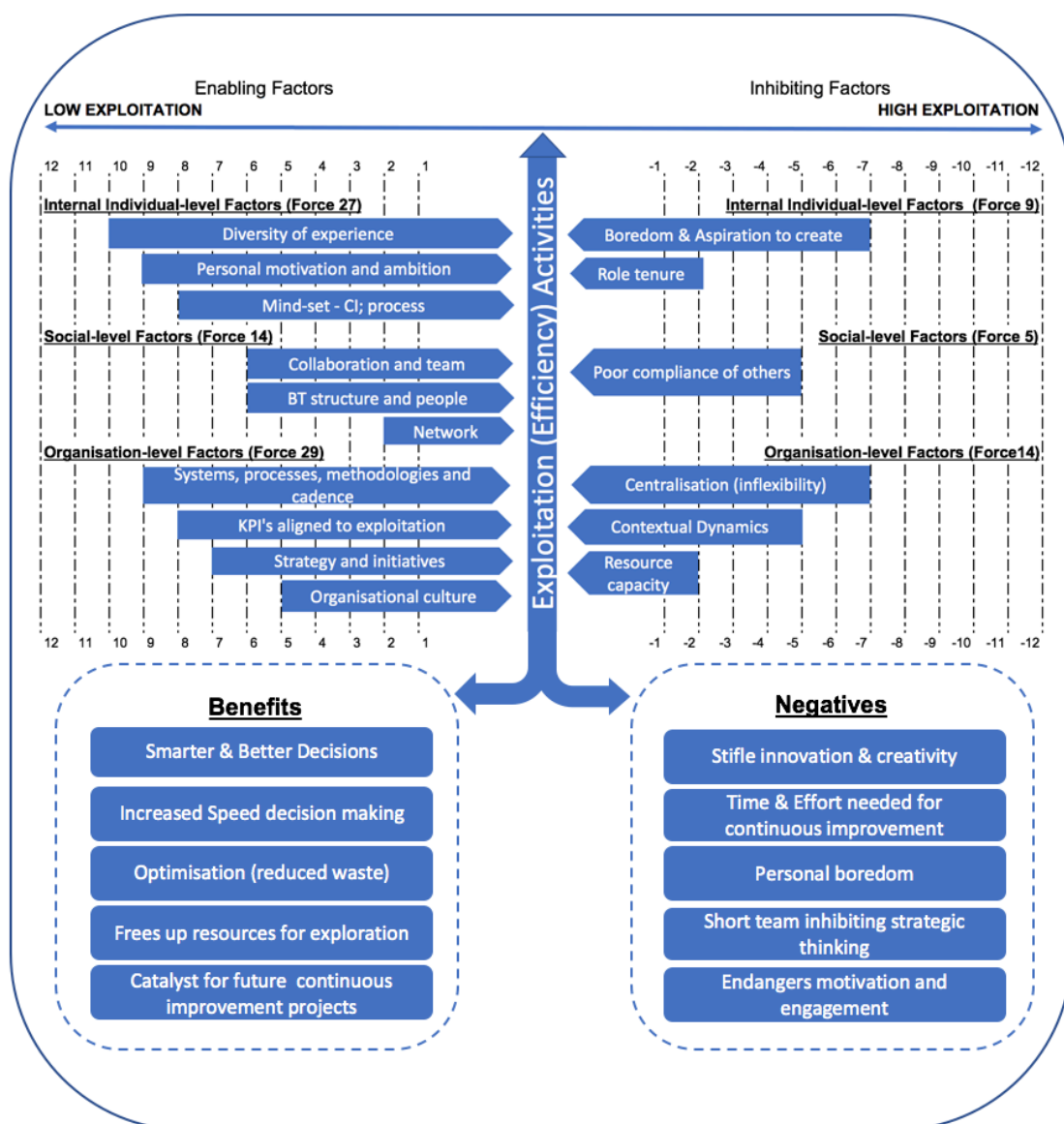
As seen in Figure 8, of the combined enabling and inhibiting factors seven were organisational-level, five internal individual-level, four social-level factors. Additionally, five benefits and five negatives of exploitative activities are summarised.

As a collective, managers feel the greatest exploitation enabling force from organisational-level factors, with a cumulative frequency of 29, closely followed by internal individual-level factors with a cumulative frequency of 27, and then social-level factors with a cumulative frequency of 14. As a collective, managers feel the greatest inhibiting force also coming from organisational-level factors, with a cumulative frequency of 14; followed by internal individual-level factors with a cumulative frequency of nine; and then social-level factors with a total frequency of four. The presence of multi-level factors influencing the individual in both exploitation and exploration is consistent with the proposition that the process of ambidexterity is a multi-level phenomenon involving organisational, social and human capital (Simsek, 2009; Turner et al., 2013).

Results are discussed in relation to Chapter 2 in the following sections.

6.2.1 Factors Enabling Individual Managers' Exploitation Activities

From frequency analysis (interview question 4a, Table 8) eight enabling factors were identified as salient with a frequency of six or more. Frequency analysis of enabling factors most dominant for managers (interview question 4b, Table 9) identified the top five factors with a frequency of two or more. Meaningfulness analysis further identified 'organisational culture'. The three sets of salient factors were combined and duplicates removed to generate ten salient enabling factors summarised in Figure 8. Salient enabling factors were found to occur across all three factor levels.

6.2.1.1 Organisation-level Factors

Four organisation-level factors with a cumulative frequency of 29 were salient enabling factors. All four are well represented in the organisational ambidexterity literature. 'Systems, processes, methodologies and cadence' was the joint second top ranking enabling factor and the top ranking organisational-level enabling factor, with a frequency of eight. This finding supports the premise of contextual ambidexterity that processes or systems are needed to support individuals' judgements about how to divide time across the modes of activities ambidexterity (Gibson & Birkinshaw, 2004). This aligns to the joint fourth ranked salient enabling factor, second ranked organisation-level enabling factor, 'KPI's aligned to exploitation'. KPI's and performance appraisals are systems that reinforce discipline, stretch and alignment to enable managerial exploitation (Patel et al., 2013).

'Strategy and initiatives' was the sixth overall salient enabler, third ranking organisational-level enabling factor, with a frequency of seven. In both organisations, the strategy of continuous improvement and six-sigma methodology had instilled a discipline of plan-do-check-act. The strategy is consistent with the tendency towards exploitation common to firms means that managers are more likely to prioritise existing business over new business (March, 1991). In turn, the strategy and methodology of six sigma have had substantial influence on the culture of both organisations which, with a frequency of seven is the ninth salient enabling factor. Culture and organisational context are well recognised antecedents for the behavioural capacity of ambidexterity (Junni et al., 2013; Taródy, 2016; Turner et al., 2013). The finding is consistent with the literature which posits a culture of discipline encourages managers to exploit (Wang & Rafiq, 2014).

6.2.1.2 Social-level Factors

'Collaboration and team membership' and 'Organisational Structure' were salient enabling factors ranking joint seventh each with a frequency of six. Organisational structure, as explained in Chapter 5, Section 5.3.1, is discussed as a social-level factor as a strong social-level component in specific reference to the Business Transformation Team in Company B was evident in discussions. In the literature ambidextrous individuals are described as brokers who seek internal linkages (Mom et al., 2015). This finding supports Kang & Snell's (2009) proposition that learning is multi-level process facilitated by the patterns of employees relationships which enables the acquisition, dissemination and integration of knowledge. This finding confirms the relationships among employees and team members are important mechanisms for exploitation.

The identification of 'personal network', as the tenth salient enabling factor, is consistent with the network approach which conceptualised the manager as embedded in a network of relationships which can be loosely coupled (Rogan & Mors, 2014). Managers use different attributes of their network in performing different tasks.

6.2.1.3 Internal Individual-level Factors

The top-ranking salient enabling factor, and top-ranking individual-level enabling factor with a frequency of ten was 'diversity of business experience'. As discussed in Chapter 5, the majority of managers linked their experience to tenure and their depth and breadth of experiences. This was felt to have afforded them a greater variety of experience of situations, tool-sets and appreciation of functional dependencies. This supports Mom et al. (2015) findings that work experience is a leading driver of a managers repertoires of

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exploitation and exploration behaviour, cognition and attitudes. Increasing organisational tenure increases individuals ambidexterity as a result of familiarity which enables managers to locate appropriate resources to support their activities and increases perceived controllability of complex tasks Mom et al. (2015). However, when functional tenure increases managers become less adept at analysing and integrating ideas and knowledge from a multiple sources, becoming more exploitative (Mom et al., 2015).

Motivation and ambition, was the joint second ranking enabler, with a frequency of nine. At this point it is interesting to review the findings of interview question 1b which sought to identify how individual managers felt about exploitation activities. The top-ranking feeling was 'It's my thing, I feel happy' with a frequency of eight. This finding suggests that some managers have an intrinsic motivation to perform exploitation activities. One manager explained *"I am an engineer, so I like to look at the current process… and see how to improve"*. This supports literature highlighting the role of motivational processes in managers seeking ambidexterity (Kao & Chen, 2016; Kauppila & Tempelaar, 2016; Keller & Weibler, 2015).

It is well reported in the literature that exploitation and exploration require conflicting mind-sets (March, 1991). With a frequency of eight the research results confirm the need for an individual to have a continuous improvement, process oriented 'mind-set' to enable an individual managers exploitation activities. In addition, managers spoke of focus and structured thinking confirming the need for focused attention in exploitation activities (Good & Michel, 2013).

6.2.2 Factors Inhibiting Individual Managers' Exploitation Activities

The frequency analysis (Interview Question 5a, Table 10) identified four salient inhibiting factors with a frequency of five or more. Frequency analysis of inhibiting factors most dominant for managers (interview question 5b, Table 11) identified the top four factors with a frequency of two or more. Meaningfulness analysis further identified low tenure as meaningful factor. The three sets of salient factors were combined and duplicates removed to generate six salient factors summarised in Figure 8. The factors within each level are discussed in light of literature presented in Chapter 2 below.

6.2.2.1 Organisational-level Factors

Centralisation was the joint top-ranked salient inhibitor of individual managers exploitation (efficiency) activities and the top-ranked organisational-level factor. This

contradicts extant literature which identifies that top-down knowledge inflows through hierarchical levels are positively related to exploitation (Mom et al., 2009; Raisch & Birkinshaw, 2008). This inhibitor was discussed in relation to continuous improvement. With both companies currently going through SAP implementation managers felt 'centralised one process fits all' was preventing their own efficiency at the local level. One manager, in discussing a new central services department, explained *"It's adding extra steps and wasted time, I used to enter data direct myself, now I have to send a request form to [central services], they input the data, it's often wrong so I have request a fix and on it goes… when if I did my self like before it takes literally 5 minutes"*. Therefore, there is an indication that routines and processes to deliver efficiency at a corporate level may impede efficiency at a local subsidiary level.

Contextual dynamics was the joint third ranking salient inhibiting factor, with a frequency of five. Managers discussed reaching a point where exploitation was ineffective which supports the environmental antecedents identified by Lavie et al. (2010). Dynamic environments often render exploitation of existing capabilities or knowledge obsolete leading to expanded search (exploration) to reduce managerial uncertainty (Lavie et al., 2010).

Resource capacity was the joint sixth salient inhibiting factor for exploitation. It was discussed in relation to being too lean to support continuous improvement and within the context of reducing headcounts mainly in Company B. This is inconsistent with the body of literature and extends the theory suggests that while slack resources are required for exploration (Lavie et al., 2010) adequate resources are required for continuous improvement within exploitation. As such, running lean organisations can compromise both modes of activity.

6.2.2.2 Social-level Factors

Poor compliance of others, as inputs or outputs of a process or routine was the joint third salient inhibitor of exploitation, with a frequency of five. Exploitation activities rely on existing routines (Zacher & Rosing, 2015) and associated with tightly coupled systems (He & Wong, 2004). The finding confirms the dependence of organisation actors' activities within the managers own exploitation activities.

6.2.2.3 Internal Individual-level Factors

Boredom and aspiration to create was the joint top-ranked salient inhibitor with a frequency of seven and the top-ranked internal individual-level factor. The factor reflects that a personal preference and personality aligned to exploration enables exploration activities. Kauppila & Tempelaar (2016) highlight employees' creative behaviour primarily depends on their individual characteristics, such as personality and motivational processes.

Low role tenure (resource turnover) was categorised as an organisational and individual factor and is discussed here as an individual factor due to the insight. With a frequency of two it ranked joint sixth salient inhibiting factor for exploitation. Managers new to their function need to acquire knowledge relating to their new domain as compared to managers who have been in their role a long time (Mom et al. 2015). Therefore, this insight confirms that managers new to a context are more likely to explore.

6.2.3 Exploitation Benefits

Interview question 2 identified benefits of exploitation activities with five top-ranking benefits, with a frequency five or more, presented in Table 13, were considered the most salient benefits. They were:

- ◦ Enables the manager to work smarter and make better decisions
- ◦ Increases speed of decision making
- ◦ Optimisation - reduces waste
- ◦ Frees up time for exploration
- ◦ Provides a catalyst for continuous improvement projects

The three top-ranked benefits, all with a frequency of eight, support the literature. Exploitation delivers increased productivity and optimisation through improved execution, refinement and variance reduction hence reducing waste (Good & Michel, 2013; March, 1991; Turner et al., 2013). This in turn creating reliability in experience enabling managers to make better cause and effect decisions (Kang & Snell, 2009).
The next two benefits both ranked fourth with a frequency of five, offer insights into the relationship managers see between the modes of activities. The benefit of freeing up time for exploration confirms that managers are able to perform both exploitation and exploration (Mom et al., 2009; Raisch & Birkinshaw, 2008). In addition, it supports the view that the modes of activities are self-referential and hence paradoxical (Smith, 2014)

Exploiting involves stability and efficiency that enables exploration. The benefit, provides a catalyst for continuous improvement projects, supports the premise that exploitation activities are self-reinforcing with success for exploitation activities leading to further exploitation activities (March, 1991).

6.2.4 Exploitation Negatives

Interview question 3 identified negatives with the top three ranking negatives including three factors jointly ranked third. Therefore, five factors in total were salient with a frequency of four and above.

- ◦ Can stifle innovation and creativity
- ◦ Continuous Improvement takes time and effort
- ◦ It can lead to personal boredom
- ◦ Short-term focused inhibiting strategic thinking
- ◦ Endangers team engagement and motivation

The first negative, can stifling innovation, with a frequency of six, confirms the reinforcing nature of exploitation. Exploitation generates reliable feedback with reinforces exploitation behaviour (March, 1991), thus creating the 'routine trap' at the micro-level (Zacher & Rosing, 2015). The authors explain that individuals who over rely on exploitation only develop conventional ideas. This links to the joint third ranking negative, short-term focus inhibits strategic thinking, with a frequency of four. The finding relates to the proposition in the literature that organisations have an inherent bias for the predictability and short-term success of exploitation (O'Reilly & Tushman, 2013), with one manager sharing *"You know it can lead to 'win now fail later'"*.

The second ranking salient negative, with a frequency of five, confirms managers perception that to achieve continuous improvement takes time and effort. This suggests a new insight that managers must also make trade-offs in the choice between types of exploitative activities. Can lead to boredom, with a frequency of four, was the joint third salient negative of exploitation activities. The fifth negative of exploitation endangering motivation and team engagement. These findings support literature supporting the benefits of exploration components within role design to promote motivation (Parker, 2014).

6.3   Discussion of Results for Exploration

Research Question 3 sought to identify the factors that individual managers perceive as enabling or inhibiting their individual exploration (innovation) activities and practices to achieve innovation.   Specifically, interview question 9a sought to identify the factors managers perceived as enabling their exploration activities; interview question 9b sought to identify which were dominant for managers. Conversely interview question 10a sought to identify the factors managers perceived as inhibiting their exploitation activities; and interview question 10b sought to identify which of those were dominant.   Salient factors were determined from the frequency analyses of results from Interview Questions 9a and 10a (Table 15 and Table 16), interview question 9b and 10b (Table 17 and Table 18) and meaningfulness analysis conducted during thematic content analysis.   The output of these analyses is explained in each section.

Research Question 4 sort to identify the perceived benefits and perceived negatives to the individual of adopting exploration practices. This question is relevant since solving a dilemma involves the individual manager weighing up the pros and cons of competing choices.

Figure 9 illustrates a summary of the research findings pertaining to research questions 3 and 4 for exploration. The salient and meaningful enabling and inhibiting factors influencing individual managers' exploration are again depicted in a force field analysis (Louw et al., 2012; Swanson & Creed, 2014). High forces of inhibiting factors push the individual towards low levels of exploration while high forces of enabling factors push the individual towards high levels of exploration. Of the combined enabling and inhibiting factors eight were internal individual-level, one was social-level and eight were organisational-level factors.   Four benefits and three negatives of explorative activities were salient.

As seen in Figure 9 as a collective, managers feel the greatest enabling force from internal individual-level factors with a cumulative frequency of 42, followed by organisational-level factors, with a cumulative frequency of 24, and social-level factors with a frequency of nine. As a collective, managers feel the greatest inhibiting force from organisational-level factors, with a cumulative frequency of 33, followed by internal individual-level factors with a cumulative frequency of six.   This finding confirms that individual ambidexterity is heavily influenced by organisational coordination mechanisms as well as individual characteristics and personal coordination mechanisms (Kauppila &

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Tempelaar, 2016; Mom et al., 2009). It is also appropriate to observe that the balance of oppositional force between individual-level enabling and organisational inhibiting forces may indicate a self-serving attribution bias (Robbins & Judge, 2015). Results are discussed in relation to Chapter 2 in the following sections.

Figure 9: Findings – Factors Affecting and Outcomes of Exploration
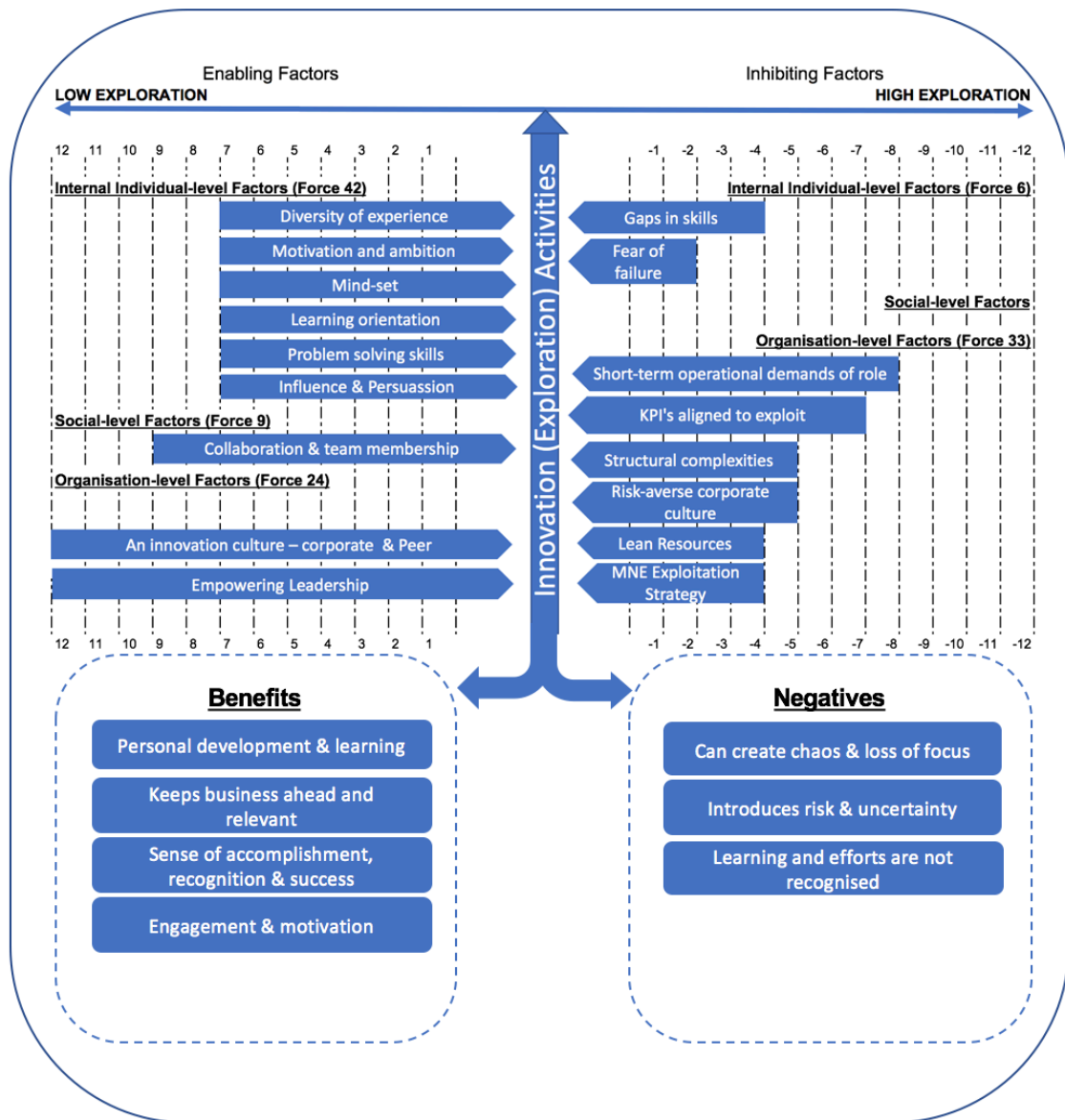
6.3.1 Factors Enabling Individual Managers' Exploration Activities

From frequency analysis (Interview Question 9a, Table 15) nine salient exploration enabling factors were identified with a frequency of seven or more. From frequency analysis of enabling factors most dominant for individual managers (Interview Question

9b, Table 16) five factors were identified as being salient with a frequency of two or more. After removing duplicates nine salient factors which are presented in Figure 9 remained.

6.3.1.1 Organisation-level Factors

The joint top-ranking enabler was identified as an 'innovative culture', with a frequency of 12. Managers identified an innovative culture being important at the corporate level and the peer group. Exploration involves experimenting and searching, as such requires a level of risk taking (March, 1991). As highlighted by one manager saying *"The corporate 'fail often but quickly' [mantra] is really encouraging. I think people are still nervous to fail. But at least you know the company gives you a safety net",* an innovation culture is one that is sees mistakes as necessary learning opportunities. Advocates of contextual ambidexterity suggest ambidexterity is grounded in the type of organisational culture (Gibson & Birkinshaw, 2004; Simsek, 2009) that promotes both creativity and discipline or the integration of multiple view-points (Wang & Rafiq, 2014).

'Empowering leadership was the other joint top-ranking salient enabler. Strong management support is necessary for the support and trust elements of contextual ambidexterity (Gibson & Birkinshaw, 2004; Kauppila & Tempelaar, 2016). Some argue that empowerment and autonomy has benefits for flexibility and creativity needed for exploration (Parker, 2014). While environments that promote decision making authority promote richer-sense making in dilemma management (Raisch et al., 2009).

6.3.1.2 Social-level Factors

Collaboration and team membership, with a frequency of nine was the third ranking salient enabling factor for exploration. This confirms that bottom-up and horizontal knowledge flows support managers exploration activities (Mom et al., 2009).

6.3.1.3 Internal Individual-level Factors

Six salient internal individual-level enabling factors were identified, all ranked fourth with a frequency of six. Each are discussed in turn. Diversity of experience was a common enabler across both exploitation and exploration. As already discussed Mom et al. (2015) identify organisational tenure as a facilitator of organisational ambidexterity. Specifically, they posit that increasing organisational tenure may lead to more open-mindedness in terms of taking risks and challenging conventional wisdom.

Mind-set was also a common enabler across the two modes of activities with the research identifying pioneering, growth and challenge mind-sets as enablers for individual managers exploration activities. Another common enabler was motivation and ambition. These findings support the literature identifying cognitive flexibility as an important factor enabling a manager to control and shift between mental sets to achieve ambidexterity (Good & Michel, 2013).

The individuals learning orientation was another of the individual-level factors. This finding is consistent with literature identifying learning abilities as reinforcing either exploitation or exploration (Lavie et al., 2010) and as an important personal mechanism used by ambidextrous individuals (Mom et al., 2009). Problem Solving was discussed by managers in relation to being analytical, questioning, outcome thinking and lateral thinking. This extends the current literature which empirically identifies a managers divergent thinking as an enabler for exploration activities (Good & Michel, 2013) with being analytical, a convergent thinking style. This suggests a more paradoxical approach to explorative problem solving.

The individual-level enabling factor of influence and persuasion was not found to be discussed in the ambidexterity literature directly. This finding offers a new insight within the context of a subsidiary within a MNE and supports literature investigating the forces that resist subsidiary initiatives. Birkinshaw & Ridderstråle (1999) identified lobbying and persistent selling of subsidiary initiatives as mechanisms to overcome resistance to subsidiary initiatives.

6.3.2 Factors Inhibiting Individual Managers' Exploration Activities

From frequency analysis (Interview Question 10a, Table 17) three salient exploration enabling factors were identified with a frequency of five or more. From frequency analysis of enabling factors most dominant for individual managers (Interview Question 10b, Table 18) three factors were identified as being salient with a frequency of two or more. Meaningfulness analysis further identified 'personal fear of failure' and 'MNE exploitation strategy' as salient factors. The three sets of salient factors were combined and duplicates removed to generate eight salient inhibiting factors, presented in Figure 9. The factors within each level are discussed in light of literature presented in Chapter 2.

6.3.2.1 Organisation-level Factors

With a frequency of eight 'Short-term operational demands' was the top-ranking salient inhibiting factor. This finding confirms the trade-off between short-term and long-term and supports the suggestion that short-term exploitation at the cost of exploration may lead to a "success trap" that reinforces exploitation (Lavie et al., 2010). Linked to operational demands, exploitation focused KPIs was the third ranking factor with a frequency of seven. This supports Kauppila & Tempelaar (2016) who highlight the need for aligned incentive schemes to promote short-term exploitation and long-term exploration activities. This confirms the role of the human resource management system role in achieving behavioural ambidexterity (Faisal Ahammad et al., 2015; Patel et al., 2013).

The third ranking inhibiting factor with a frequency of five was structural complexities. Managers expressed frustrations with the inflexibility and tunnel vision created by silos, one manager saying *"People don't have sight of each other… they're only responsible for a proportion of the chain"* going on to say *"[Silo's lead to] tunnel vision by others means inputs are not right"*. The literature suggests that mechanistic structures support exploitation while organic structures facilitates exploration (He & Wong, 2004; Lavie et al., 2010). Mechanistic structures, like that described by managers, utilises formalisation, functional specialisation, formal duties and power to facilitate exploitation (Lavie et al., 2010). Also joint third was risk averse corporate culture. This confirms Lavie et al. (2010) assessment that risk aversion drives exploitation, since the benefits from exploitation are more proximate, certain and immediate.

Lean resources with a total frequency of four was the joint fifth ranking salient inhibiting factor and was the top-ranked self-stated dominant inhibitor identified by three managers. Lavie et al. (2010) identified slack resources as an antecedent of exploration but highlight the relationship as an inverse U. Explaining that slack resources, unabsorbed or recoverable may facilitate risk-taking and exploration while excessive slack may adversely affect exploration by loosening discipline (Lavie et al., 2010).

MNE Exploitation Strategy with a frequency of four was the joint fifth ranking salient inhibiting factors. Managers spoke of being restricted by the processes, systems and structures aligned to the organisations exploitation strategies in the subsidiary. A MNE's capabilities exploitation offsets the liabilities of foreignness and mitigates the local competitors advantages (Luo, 2002). However, Luo (2002) argues sustainable

competitive advantage is only possible when firms invest in developing new capabilities and generative learning. Birkinshaw & Ridderstråle (1999) suggest subsidiary managers need to develop strategies to circumvent the MNE's immune system which resists subsidiary initiatives.

6.3.2.2 Internal Individual Factors

Managers identified gaps in skills appropriate for exploration as an inhibitor, with a frequency of four. This finding offers support for the perspective that exploitation and exploration take fundamentally different skill-sets (March, 1991) and some support for the proposition, highlighted by Gupta et al. (2006), suggesting an individual's finite personal resources of time and knowledge restricts their ability to develop competencies both modes of activities. However it is worth highlighting that Mom et al. (2009) accept the difficulties but prove they are not insurmountable for the individual. This highlights implications for training and development programmes.

Fear of failure was identified as a meaningful factor with a frequency of two. This finding confirms Lavie et al. (2010) summary that a managers level risk aversion influences their preference for exploitation. High risk managers influence organisations to exploit at the expense of riskier exploration.

6.3.3 Exploration Benefits

Research Question 4 sought to establish what managers view as the benefits and negatives of their exploration activities. This is relevant since solving a dilemma often involves weighing up the pros and cons of competing choices. Interview question 7 specifically sought to identify the benefits of innovation (exploration) activities for individual managers. The top four ranking benefits, with a frequency of five or more, presented in Table 20, were considered the most significant benefits.

- ◦ Enables personal development and learning
- ◦ Keeps business ahead and relevant
- ◦ Sense of accomplishment, recognition and success
- ◦ Enhanced motivation and engagement

The top-ranking benefit was exploration activities 'enables personal development and learning', with a frequency of nine. This benefit reflects an inherent outcome of explorative activities which require search, experimentation and adaptive learning

(March, 1991; Papachroni et al., 2016; Turner et al., 2013). The second ranking benefit, with a frequency of six, was a company level benefit 'keeping the business ahead and relevant'. There is extensive empirical evidence of the organisational benefits in terms of performance and longevity (Turner et al., 2013). Also ranked joint second, the benefit 'sense of accomplishment, recognition and success' encompasses both intrinsic and extrinsic motivation mechanisms supporting literature highlighting the role of motivational processes in managers seeking ambidexterity (Kao & Chen, 2016; Kauppila & Tempelaar, 2016; Keller & Weibler, 2015).

The benefit of enhanced motivation and engagement, with a frequency of five, offers further support for Parker's (2014) motivational work design perspective which identifies exploration activities as providing important enrichment and motivation for individuals.

6.3.4 Exploration Negatives

Interview question 8 specifically sought to identify the negatives of adopting exploration (innovation) activities for individual managers. The top three ranking negatives, as presented in Table 21, were considered most significant with a frequency of four or more.

- ◦ Can create chaos and loss of focus
- ◦ Introduces risk and uncertainty
- ◦ Learning and efforts are not recognised

The top-ranking negative, with a frequency of 11, can create chaos and loss of focus is reflective of the 'novelty gap' at the micro-level. Rosing & Zacher (2017) argue that individuals who explore at the expense of exploitation get caught having lots of original ideas and try out new things but fail to capitalise on them as this requires exploitative activities and focus. The second-ranking negative, with a frequency of six, 'introduces risk and uncertainty' is indicative of explorative activities. Exploration involves experimentation and increased variance (March, 1991) which in turn impedes managers ability to draw cause and effect conclusions (Kang & Snell, 2009) which introduces uncertainty. The third-ranking negative, with a frequency of four, was 'learning and efforts are not recognised'. This negative was restricted to one organisation which is suggestive of lack of cultural support for learning through explorative activities.

6.4 Managing the Dilemma of Exploitation and Exploration

6.4.1 Trade-offs and Tensions in Pursuit of Managerial Ambidexterity

Tensions between exploitation (efficiency) and exploration (innovation) have been explored at an organisational or business unit level but less is understood about how managers interpret and resolve tensions (Nosella et al., 2012). Research question 5 sought to identify the trade-offs managers perceive necessary and tensions when solving the dilemma of exploitation and exploration.

The top three trade-offs identified highlight the perceived trade off as a combination of short-term orientation, requiring less time and effort within known territory for less risk, predictable and measureable returns from exploitation. Versus long-term orientation, requiring more time and effort within unknown territory for riskier, less predictable and less measureable returns from exploration.

6.4.1.1 Resources and Effort

Ranked second, with a frequency of eight, was a resource and capacity trade-off of time and effort. One manager explained *"There is a trade off on energy, it's what matters most to me at that time, where is the benefit and what is the best benefit I am going to get from that decision, so there could be things that are urgent to everybody but I have to make the call that that's not important right now".* This view is in line with March's (1991) proposition that the modes of learning compete for scarce resources.

6.4.1.2 Tensions Between Alignment and Adaptability

The other two top three trade-offs were indicative of the internal organisational tension between alignment and adaptability (Gibson & Birkinshaw, 2004). The top-ranking trade-off, predominantly identified by TMT, acknowledged delivery now versus in the future and identified the tension between the short-term and the long-term. Conversely more MM's than TMT's identified the trade-off between known territory and unknown territory acknowledging the tension between stability and change in terms of levels of predictability and risk. These finding supports the findings of (Papachroni et al., 2016) who found empirically that managers interpretations of tension are influenced by organisational level with senior managers facing strategic tensions and middle managers facing operational tensions between exploitation (efficiency) and exploration (innovation).

Key insights from the trade-offs discussions were managers perception that tensions rest between the strategic paradox of global integration (alignment) and local responsiveness (adaptability) (Lewis & Smith, 2014; Taródy, 2016). Managers expressed feeling the tension between the exploitation pressures created by KPI's, the imperative demands of the corporation and structural restrictions. This was as opposed to the exploration pressures created by a need for local responsiveness to customer needs and context or indeed the managers own personal preferences. One manager identifying the trade off as *"[exploitation] is a dictated agenda and [exploration] my own agenda"*. While another as global standardisation (exploitation) and local adaption (exploration). Exploration expectations are more implicit replying on cultural persuasion or contextual dynamics. While exploitation expectations are explicit and cascaded through the organisations reward and recognition system. This was evidenced by the TMT quote *"[exploration] is not formally encouraged [through KPI's] but there is a cultural expectation that this is the way we operate but it is not formalised in expectations".* These insights are represented in Figure 10.

Figure 10: Tension Interpretation is Influenced by Managerial Level
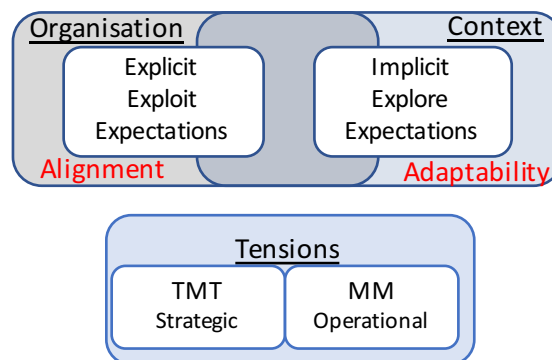
6.4.1.3 Balance not Trade-off

Three middle managers explicitly expressed that they couldn't see the choice as a trade-off, rather seeing the mode of activities as interlinked. One manager saying *"I can't see it as a trade-off. It's a circle, they fuel each other."* Another saying *"But I don't see, I don't actually see any lines between the two so I don't see the necessity for them to be mutually exclusive".* These views are consistent with arguments in the literature that identify synthesis of the modes can be achieved when managers view exploitation and exploration activities as interwoven or dynamically interrelated (Andriopoulos & Lewis, 2009; Papachroni et al., 2015). The quotes above evidence that these managers have

achieved what Smith (2014) identifies as integrating, where the manager accentuated the linkages between the two modes to leverage a synergistic relationship.

6.4.2 Individual Ambidexterity

Research Question 6 sought to establish managers perception of the relationship between the two poles/modes of exploitation and exploration and how they reconcile the tensions and conflicting demands of the dilemma. That is if the trade-off perspective of either/or solutions that require balance or the paradoxical perspective of both/and solutions that require combination between exploitation and exploration. Furthermore, the research question aims to identify if managers view and ultimately resolve tensions differently depending on their management level.

6.4.2.1 Dynamic Combination

All 18 participants believed a combination of exploitation and exploration activities was possible. However, little agreement was evident on the specific right balance or combination between exploitation and exploration. The majority, 75%, of managers felt, in general, a high/high combination of exploitation and exploration activities would create the maximum impact. Thus, the findings identify the applicability of the management continuum model presented in Figure 2 (Gilbert & Sutherland, 2013; Naidoo & Sutherland, 2016) to the individual managers dilemma of managerial ambidexterity.

With one exception, all managers currently achieved a combination, of various degrees, which contradicts Gupta et al. (2006) proposition that the individual person cannot exploit and explore. However with one manager claiming to be 100% exploitation, despite wanting to have a balance, the findings do not conclusively contradict Birkinshaw & Gupta's (2013) argument that a strict separation of the two mode at the individual level is impossible.

All managers described the balance needed as being situational and as such managers needed to adapt balance dynamically. One TMT describing a sequence of paradox discovery moving through the management dilemma model dynamically as projects or situations develop. These findings support the paradox literature that suggests rather than an approach based on solution and control the dynamic nature of the relationships between modes or poles of a paradoxical dilemma demands an ongoing 'working through' paradox (Luscher & Lewis, 2008; Schad et al., 2016). As represented in Figure 11 the persistent tensions which exist within a dynamic context require ongoing adaptive

responses rather than a one-time resolution. This supports Smith & Lewis's (2011) dynamic equilibrium model which proposed accepting tensions and managing paradox by vacillating between choosing and accommodating alternatives over time.

As represented in Figure 11, in addition to situational dynamics already discussed three additional factors influence the dynamic sense making process for a manager. The first is managerial level. In general TMT's were more balanced towards exploration while MM's were more balanced towards exploitation. One TMT explained *"People at my level need to be future focused, while the [middle] managers should be running efficiency."* This supports the earlier finding in section 6.4.1.2 and the literature that the tensions felt by middle managers are more operational than strategic (Papachroni et al., 2016). In addition, it can be argued that MM's, with the pressure to deliver operationally, experience the most pressure to find creative both/and solutions. This is evidenced in section 6.4.1.3 by MM's who couldn't see the choice between exploitation and exploration as a trade-off, rather seeing the mode of activities as interlinked. This observation offers some validation of Kauppila & Tempelaar's (2016) argument that middle-level managers are better positioned to create the necessary circumstances for ambidextrous learning.

Figure 11: Dynamic Sense Making
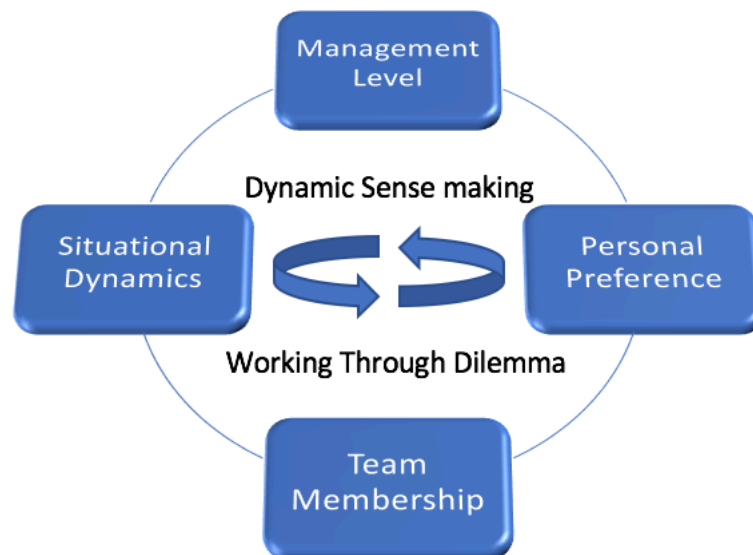
Secondly, personal preference and attitudes was again evident as having an influence on individual managers balance. A TMT explaining *"I have a proper hatred of [Company A] processes so I should be here [70% exploration]"* While a MM explained *"…Its also my preference, I will exploit for as long as I can…".* The third factor of team membership

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has an important influence on the sense making process and the resulting mechanisms selected to solve the dilemma. This is discussed in the following sections.

6.4.2.2 Relationship Between Modes Shapes Mechanism Selection

There was little absolute consensus on the relationship between exploitation and exploration activities. Six managers saw the modes as competing for resources, six as independent and five saw the modes as complementary. These difference in perception shapes the approaches or mechanisms managers have to resolving the tension. Figure 12 represents the mechanisms which are selected depending on context and managerial level.

Referring to resource trade-offs while articulating the modes as competing or as one manager put it *"… they steal from each other but you have to have both."*, four managers, use a form of spatial or structural separation (Tushman & O'Reilly, 1996) within their units or groups. Delegating activities to team members that clash with their own personal preference or based an assessment of which team members skills and experience are most suited to the particular activity.

Figure 12: Mechanisms for Resolving the Tension
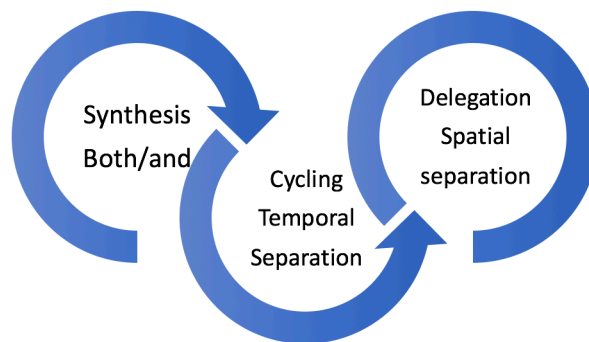
When managers perceive the modes to be complementary or independent managers, particularly middle managers who feel the operational tensions, utilise a form of temporal separation or dynamic equilibrium (Smith & Lewis, 2011). Managers describe cycling through exploitation and exploration activities independently and within their team. Switching from one mode to the next is prompted by the context or situation or when the output from one activity prompts the need for the alternative approach. Evidenced by a TMT saying *"I'm always playing on both sides, in my department we do what-ever makes sense at the time"*. While a MM explained *"The repeating of [exploration] then flips over back to exploit. You've done something dynamic, it's now become exploitation, but also*

you want to go back into explore to try to do something again". These findings support the literature for contextual ambidexterity (Gibson & Birkinshaw, 2004) which suggests ambidexterity is achieved through behavioural shifts determined by the individuals own judgement. The cycling between modes supports Papachroni et al. (2016) assessment of contextual ambidexterity as individual-level temporal sequencing.

The description by some managers of one mode informing the other supports literature that conceptualised the modes as tied together by external mutuality yet sharing a dynamic and constantly shifting relationship (Schad et al., 2016). Managers, seeing the modes as complementary, spoke of using exploitation processes or methodologies, sometimes facilitated by team members or network actors, to deliver exploration activities. This supports the concept of synthesis with a true both/and real-time combination of activities (Andriopoulos & Lewis, 2009).

In discussions, it became apparent that these alternative mechanisms are not used exclusively, the same managers often discussed utilising more than one mechanism. Therefore, it is concluded that managers adapt their mechanics to the situation which is informed by the context, their personal preference, the specific type of exploitative or explorative activity. This finding extends Raisch & Birkinshaw (2008) proposal that organisations use a blend of mechanisms, by offering the suggestion that individuals also use a blend of mechanisms.

6.4.2.3 Core Managerial Ambidextrous Competencies

Four core competencies were identified as being necessary for managerial ambidexterity and are represented in Figure 13.

Figure 13: Managerial Ambidextrous Competencies
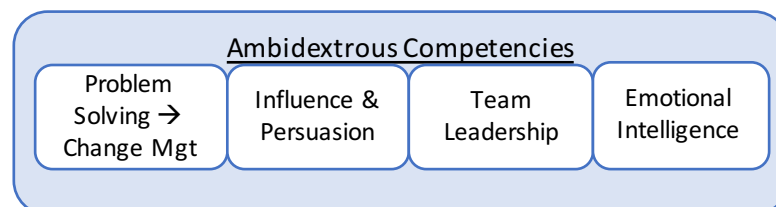
The top-ranking competency, with a frequency of 15, was 'problem solving leading to change management'. This finding supports Lavie et al. (2010) whom observed that employees' problem solving underpinned Toyota's enduring ability to exploit and explore.

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In discussion, this competency encompassed a broad set of skills and thinking styles which were, other than already stated in section 6.3.1.3, consistent with Good & Michel (2013) findings. The key, as identified by Good & Michel (2013), is the cognitive flexibility for managers to switch between focused attention and divergent thinking.

The next three competencies were related to engagement and leadership of others and provides additional and substantial evidence that managers rely on social groups and team membership to work through the dilemma as seen previously in Figure 11. The second top ranked competency with a frequency of 14 was 'team leadership'. Discussed from diverse angles including team engagement, team building and team development. The literature identifies a range of opening and closing behaviours used by ambidextrous managers that stimulate ambidexterity in teams (Zacher & Rosing, 2015). Opening behaviours, include empowering followers, encouraging challenge and experimenting with new solutions, are balanced with closing behaviours, such as expectation monitoring (Zacher & Rosing, 2015). Havermans et al. (2015) further identified stimulating inclusive discussions, respecting diversity and being tolerant of mistakes as important team leadership competencies. Jansen et al. (2016) identify team cohesion, with heightened bonding amongst members and team efficacy, a shared belief a group can achieve its task, helps teams combine exploitation and exploration activities.

The joint fourth-ranking competency, with a frequency of eight was influence and persuasion. As already discussed in section 6.3.1.3 influence and persuasion appears not to have been specifically discussed in the ambidexterity literature. However Birkinshaw & Ridderstråle (1999) identified influence and persuasion as important skillsets for managers to overcome resistance to subsidiary initiatives. This finding highlights the importance of this competency in the subsidiary context of a MNE. The other joint fourth competency was emotional intelligence (EQ) with eight responses. In their study of frontline employees Kao & Chen (2016) identified EQ as enabling employees who are intrinsically motivated to engage in ambidextrous behaviour. This finding extends the literature to apply EQ to managers.

6.5 Conclusion

Insights collected from 18 participants have provided extended understanding of the components of the management dilemma of exploitation and exploration at the level of the individual manager. Comprehensive models of the enabling and inhibiting factors that influence a manager's ability to exploit and explore have been developed.

There is additionally clear evidence of a dynamic sense making and tension resolution process taking place at the individual level. Through this approach managers are able to combine their exploitation and exploration activities dynamically through mechanisms in a hybrid management approach with both modes of activities seen as necessary for impact. Four core competencies were identified as necessary to achieve managerial ambidexterity, the majority relating to engagement or leadership of others.

CHAPTER 7: CONCLUSION

7.1   Introduction

In this chapter, the dynamic managerial ambidexterity dilemma model is presented and discussed. This model summarises the findings and insights gained through face-to-face, in-depth interviews with 18 senior executive (TMT) and middle managers, as discussed in Chapter's 5 and 6. The research setting, South African subsidiaries of two MNE's, was selected due to the corporation's explicit global commitment to exploitation and exploration plus evidence of local adaptation. Hence participants were considered well positioned to discuss how the dilemma can be managed by individual managers.

Based on the findings and the developed model, implications for organisations and senior managers are presented, as well as with recommendations for future research.

7.2   Synthesis of the Principle Findings

Despite a growing consensus that ambidextrous organisations need ambidextrous managers (Mom et al., 2015; O'Reilly 3rd & Tushman, 2004; Raisch & Birkinshaw, 2008) a comprehensive model of factors influencing individual managers exploitative and explorative behaviours and ambidexterity proved elusive in the literature. A thorough understanding of how managers view and ultimately resolve the dilemma of simultaneous demands for exploitative and explorative activities is needed. This will enable organisations to facilitate actors ambidexterity and thus achieve organisational ambidexterity, a cornerstone of a firms success and long-term survival (Junni et al., 2013; Lewis et al., 2014). The principle findings are outlined below.

7.2.1 Paradoxical Both/and Dilemma Solutions

The first prominent finding of this research is how managers view the dilemma. Managers confirm unanimously that a combination of exploitation and exploration activities is possible and that exploitation and exploration activities must not be regarded as mutually exclusive. Providing evidence that paradoxical both/and solution is possible at the level of the individual manager this research answers calls from leading paradox scholars (Schad et al., 2016) for understanding of individual approaches to paradox resolution.

The majority, 75%, of managers felt a high/high combination of exploitation and exploration activities would create the maximum impact which is consistent with Junni et al. (2013) findings, but all managers also felt the appropriate combination was situation

dependent. Therefore, the findings support the applicability of the management dilemma model presented in Figure 2 (Gilbert & Sutherland, 2013; Naidoo & Sutherland, 2016) to the individual managers continuum model of managerial ambidexterity.

7.2.2 Managerial Ambidexterity is a Multi-Level Construct

The second prominent finding of this research is the confirmation that managerial ambidexterity is a multi-level construct. The presence of multi-level factors influencing the individual manager in both exploitation and exploration is consistent with the proposition that the process of ambidexterity is a multi-level phenomenon involving organisational, social and human (individual) capital (Simsek, 2009; Turner et al., 2013).

As a collective, managers feel the greatest enabling and inhibiting force for exploitation from organisational-level factors, with a cumulative frequency of 29 and 14 respectively (Figure 8). While managers feel the greatest explorative enabling force from internal individual-level factors with a cumulative frequency of 42 and the greatest inhibiting force from organisational-level factors, with a cumulative frequency of 33 (Figure 9). This finding confirms that individual ambidexterity is heavily influenced by organisational coordination mechanisms as well as individual characteristics and personal coordination mechanisms (Kauppila & Tempelaar, 2016; Mom et al., 2009). Team membership and collaboration within networks and teams has also been identified as important influencer on individual ambidexterity (Rogan & Mors, 2014; Simsek, 2009; Turner et al., 2013).

7.2.3 The Dynamic Managerial Ambidexterity Model

The major contribution of this research is the development of an empirically grounded dynamic managerial ambidexterity model, presented in Figure 14. Developed through integration of the themes identified in Chapter 5 and explored in Chapter 6. Consideration was given to how constructs are enacted and experienced by managers.

The critical attributes of this model demonstrate that the management of the exploitation and exploration dilemma is both dynamic and highly complex. This means that managers must be comfortable with complexity. They need the ability to assess and assimilate multiple contextual dynamics and influencing variables during dilemma sense making. At this point managers choices of mechanisms and their enacted competencies are more likely to be appropriate in order to deliver adaptation and managerial ambidexterity.

Figure 14: Dynamic Managerial Ambidexterity Dilemma Model
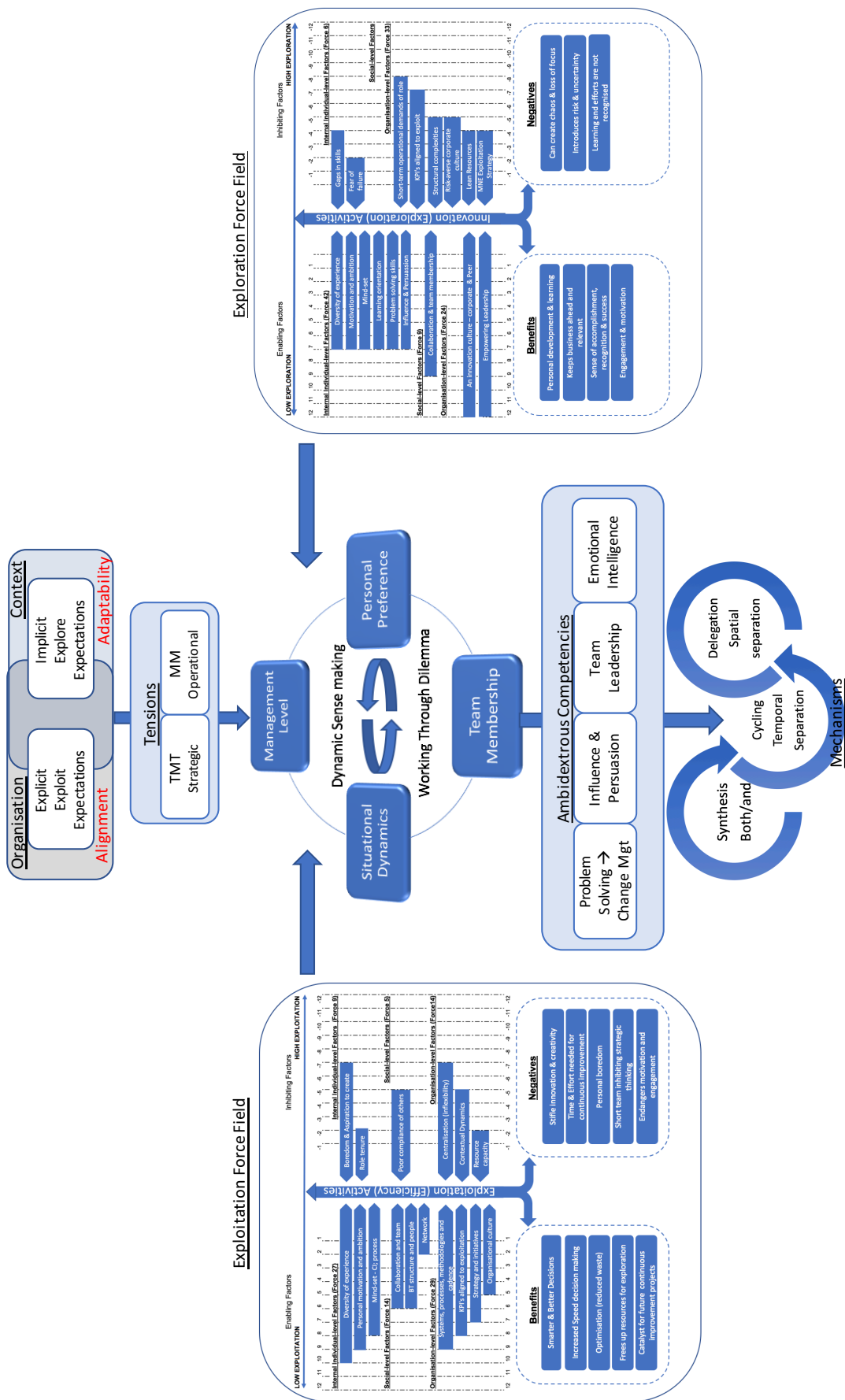
The model extends current understanding of paradox resolution. The existing theory base predominantly emphasises collective approaches to paradox resolution (Schad et al., 2016). With the development of dynamic managerial ambidexterity model this research increases understanding of individual approaches to paradox resolution. Each component of the model is discussed in detail.

7.2.3.1 The Dilemma and Resulting Tensions

The first component of the model illustrates the exploitation and exploration dilemma and the source of the tensions associated with the dilemma. The findings suggest the dilemma is created between organisational driven and contextually driven opposing demands for exploitation and exploration. The need to do both to enable sustainability creates tensions which rest between the strategic paradox of global integration or alignment and local responsiveness or adaptability (Gibson & Birkinshaw, 2004; Lewis & Smith, 2014). The findings provide a new angle to understand these tensions as experienced by a manager within a subsidiary of a MNE. Namely, at a company level, exploitation expectations are explicit and procedural in measurement. Conversely, expectations that managers pursue appropriate exploration activities within the subsidiary is more implicit.

To facilitate the process, organisations need to accelerate the adaptation of expectations to dynamic context changes and improve salience for managers of both exploitation and exploration expectations. Managers interpret these tensions either strategically or operationally, depending on their managerial level confirming Papachroni et al. (2016) findings. This interpretation ultimately affects how managers proportion their time. Findings identify that middle managers spend more time on exploitation than their TMT counterparts with 73% of time on average, allocated to exploitation versus 61% for TMT. In addition, the maximum level of exploration for MM was 30% versus 70% for TMT. In building on the current literature it is argued that middle managers, with the pressure to deliver operationally, experience the most pressure to find creative both/and solutions as compared to TMT's.

7.2.3.2 Dynamic Sense Making

The next component of the model highlights that managers partake in dynamic sense making and working through the dilemma of exploitation (efficiency) and exploration (innovation). This finding is consistent with the extant literature supporting the dynamic nature of sense making (Smith & Lewis, 2011; Smith, 2014); but extends Smith's (2014)

dynamic decision making proposition from Top Management Team to also include middle managers. The findings also build on the literature by identifying that managers develop their interpretations and adjust their understanding of the necessary combination of exploitation and exploration influenced by the four factors identified in section 6.4.2.1. Namely the situational dynamics, the managers personal preferences for exploitation and exploration, the managers level and their team membership.

Managers and organisations need to remain sensitive to changing situational dynamics, harnessing insights in a timely and responsive manner while being able to ignore erroneous signals. Managers need to be self-aware in order to identify their personal motivators and preferences to understand how these factors shape their sense making. With heightened awareness managers can identify personal biases and mitigate for these through team engagement, team structures and leveraging competencies.

Other influencers during the process are the managers managerial level and their team membership. With increasing managerial level, both the decision-making power and control over resources increases supporting the importance of decision-making authority as identified by Raisch et al. (2009). The consequence of team membership includes the depth and breadth of perspectives in sense-making and the diversity of abilities and competencies in facilitating the mechanism selection. This has implications for team composition, roles and responsibilities.

In addition, at the same time, managers are affected by the forces created by multi-level factors which enable or inhibit a manager's activities. This is represented by the force-fields for exploitation and exploration and are discussed below.

7.2.3.2.1 Force-field Analyses

A manager's dynamic sense making is influenced by the relationship between multi-level enabling forces and inhibiting (or constraining) forces of exploitation and exploration, represented in the force-field analyses (Figure 8 and 9 in Chapter 6). After weighing up the advantages and disadvantages of each activity managers must navigate the inhibiting forces and capitalise on enabling forces in order to deliver both exploitation and exploration activities.

The development of empirically grounded force-field analyses for managers' exploitative and explorative behaviours forms a component of the dynamic managerial ambidexterity

dilemma model. In addition, these force-fields bring together and confirm disparate factors identified in the literature and contributes to the body of knowledge with new contributions. Firstly, 'centralisation' was identified as an inhibitor of exploitation. Routines and processes designed to deliver efficiency on a corporate level may actually impede efficiency at a local level within a MNE South African subsidiary. Secondly, the factor of 'too lean resources' was identified as an inhibitor of exploitation (efficiency). This finding suggests that while slack resources are required for exploration (Lavie et al., 2010) operating with overly lean resources impedes both exploration and exploitation thus building on the existing literature.

Thirdly, 'problem solving' was identified as an enabling factor for exploration (innovation) being discussed by managers in relation to being analytical, questioning, outcome thinking and lateral thinking. This extends the current literature which empirically identifies a managers divergent thinking as an enabler for exploration activities (Good & Michel, 2013) with being analytical, a convergent thinking style. This suggests a more paradoxical approach to explorative problem solving with both divergent and convergent thinking necessary. Fourthly, influence and persuasion, identified in the research as an innovation enabling factor, was not found to be discussed in the ambidexterity literature directly. This finding offers a new insight within the context of a subsidiary within a MNE and supports literature investigating the forces that resist subsidiary initiatives which identified lobbying and persistent selling of subsidiary initiatives as mechanisms to overcome resistance to subsidiary initiatives (Birkinshaw & Ridderstråle, 1999). Finally, the identification of 'continuous improvement takes time and effort' as a negative of exploitation suggests that managers must make trade-off decisions when making a choice between types of exploitation activities.

7.2.3.3 Core Competencies

The link between a manager's dynamic sense making and the chosen mechanisms to achieve ambidexterity are four core competencies identified as necessary for managers seeking ambidexterity. As discussed in section 6.4.2.3 a manager's abilities in problem solving leading to change management, team leadership, influence and persuasion and their emotional intelligence influence their level of success in managing the exploitation and exploration dilemma. The implications for this extend from recruitment and selection to training and development.

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7.2.3.4 Mechanisms

The final component of the model involves managers selecting mechanisms to resolve the tensions. As discussed in section 6.4.2.1, managers achieve ambidexterity by selecting between synthesis of both/and solutions, temporal separation where the manager cycles from one mode to the next or by using team-level spatial separation and allocating activities to separate team members.

The selection of mechanisms is dynamic and influenced by a managers' perception of the current dynamic relationship between modes. Managers adopt mechanics based on the situational sense making outcome, adapting their selection through dynamic self-adjustment. This finding extends Raisch & Birkinshaw (2008) proposal that organisations use a blend of mechanisms, by offering the suggestion that individuals also use a blend of mechanisms. Thus, providing a clearer picture of how individual managerial ambidexterity is achieved in practice.

7.3   Implications for Management

As a consequence of the findings of this research there are material implications and practical guidelines that could enhance managerial capacity to engage in exploration, exploitation and ambidexterity. Understanding the factors that enable and inhibit an individual's exploration and exploitation activities would allow organisations to position managers in appropriate roles and provide the contextual conditions that support individual managerial ambidexterity. The overarching implication is that organisations seeking ambidextrous behaviour need to attend to multiple levels of factors which influence the individual managers' ability to engage in activities, namely organisational, social and internal individual-level factors.

At the organisational-level culture was a strong enabling factor for both exploitation and exploration. Organisations looking to encourage ambidextrous behaviours in their managers must create a culture which promotes efficiency, routine and accuracy while promoting risk taking and experimentation. With the inherent risks associated with exploration a culture which is accepting of failure as a learning mechanism would be supportive. The establishment of 'Key Learnings' as part of any best practice sharing processes is a supportive way to make failures both transparent and support the honest sharing of learnings in the organisation. The utilisation of problem solving techniques and the inclusion of these techniques as part of the organisations mandatory core learning agenda would enable individuals to share openly, discuss and agree on more

successful ways of working in the future. This is also linked to empowering leadership which was a key enabler for exploration.

Findings confirm a clear role for human resource management systems in achieving behavioural ambidexterity. Specifically, the findings suggest that organisations have more difficulty explicitly articulating exploration KPI's which can inhibit managers pursuing explorative behaviours. Therefore, organisations seeking to increase managerial innovation and promote ambidextrous behaviours need to develop performance measurement and incentive programmes which reward both exploitation and drive more engagement in exploration behaviour. Establishing explicit expectations for exploration is recommended. Integrating well defined connections between the behaviours which deliver the ambidexterity the organisation needs to annual performance appraisals, in doing so, assess and reward the 'how' as well as the 'what' managers deliver. Additionally, and related to culture, approaches which establish clear behavioural expectations as part of the leadership skill set would be reinforcing.

At the individual and social-levels, organisations need to be aware of the influence of personal predispositions for exploitation and exploration rooted in an individual's personality traits. This has implications for recruitment, selection and in establishing teams. Organisations should conduct thoughtfully defined personality profiling when recruiting for ambidextrous managers. Select managers who possess high levels of EQ, have mind-set flexibility, are open to experience and learning, intrinsically motivated by ambidexterity and possess problem solving skillsets will contribute to enhanced ambidexterity. Diversity of experience was an enabling factor for both exploitation and exploration. This enabler is relevant for both recruitment and internal development approaches (discussed below). Organisations could actively evaluate competing organisations success rates in achieving ambidexterity, then assess roles within those organisations which 'fit' the needed profiles and proactively attempt to acquire the appropriate candidates.

There are also clear implications for internal development programmes. Ambidextrous managers should be fully supported in the development of the core competencies of problem solving, change management, team leadership, EQ, influence and persuasion skillsets. Management development programmes that create exposure to multiple functions such as job rotation and role shadowing will allow managers to broaden expertise, develop networks, increase identification with the firm and create divergent skillsets. Formal and informal mentoring schemes could also support the development

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of individuals who can be mentored by individuals considered to be experts in managing this ambidexterity. Becoming a mentor in this area would also support the concept of reward for behavioural excellence. Retention strategies for individuals considered best in class in managing this dilemma must also be clear and acted out formally.

As discussed, the process of dynamic sense making is highly complex and dynamic. With the achievement of managerial ambidexterity having such an influential impact on their long-term survival organisations must not leave successful sense making to chance. Therefore, organisations need to proactively and explicitly stimulate paradoxical inquiry in managers at both TMT and MM level and within team environments.

7.4   Limitations of the Research

Qualitative research is subjective and at risk of being affected by bias as highlighted in Chapter 4. Potential limitations of this research were identified as follows:

- This study was conducted in two company settings. Both companies were foreign MNE operating subsidiaries in South Africa with an exploitative strategy which may limit the generalisability of the findings. The views and opinions of participants may have been subject to contextual biases from the contextual environment within the represented organisations. Greater and more diverse samples would be necessary to enhance the generalisability and robustness of the study findings.

- A purposive sampling technique was used to identify the sample set for the research. Given the reliance on the researcher's judgement the collected data may have been subject to sampling bias resulting from the views, beliefs and opinions of the researcher. Therefore, the risk of sample representability is acknowledged.

- This study relied on a self-stated approximation of the extent to which participants pursue exploitation and exploration activities. Therefore, results may overstate socially desirable behaviours. In addition, there was no attempt to measure performance outcomes of individuals exploitation and exploration activities so the effectiveness of activities and behaviour cannot be assessed.

- The researcher had no formal training or experience in interviewing techniques and this may have impacted the results.

7.5   Suggestions for Future Research

The research explored the under researched area of managerial ambidexterity and the management dilemma of exploring new capabilities and knowledge while simultaneously exploiting existing capabilities and knowledge. An explorative study was employed to discover new insights in to the topic in order to gain deeper understanding into the enabling and inhibiting factors experienced by managers and the mechanisms used by individuals to manage the dilemma. The limitations of this study and the findings highlight a number of avenues for future research

- Future research could utilise more heterogeneous samples and study the impact of different industries, organisations or functions more directly.

- Findings highlighted that managers experience the efficiency and innovation dilemma as situational. This research offers a static view of how managers alleviate these tensions therefore future research utilising longitudinal studies exploring the dynamic nature of the paradox is recommended. This might explore to what extent and how individuals manage tensions over time capturing the dynamics underlying the behavioural balance of exploitation and exploration. Specifically, such a study could seek to further understand the temporal separation mechanic in more depth.

- Findings highlight the importance of social-level factors in particular the benefits of team membership, team leadership and delegation. Therefore, future studies should supplement this study by investigating how ambidextrous managers affect ambidexterity at the collective team-level. One important question whether team effectiveness is enhanced by ambidextrous team members or when members specialising in exploitation and exploration are led by an ambidextrous leader.

- Another interesting angle for further research would be to replicate the study in small to medium size enterprises and start-ups. This would facilitate understanding of managerial ambidexterity in alternative organisational contexts and dynamics.

7.6   Conclusions

For the first time this research offers comprehensive empirical evidence of how individual managers view and resolve the tensions created by the dilemma of exploitation and exploration. Bringing together a holistic model of the multi-level forces which impact individual managers abilities to achieve ambidexterity; a dynamic and complex process is identified in which managers work through the dilemma. Through 'making sense'

managers dynamically select mechanisms through self-adjustment to reconcile the tensions created by the dilemma of ambidexterity.

It is confirmed that managers can combine exploitation and exploration activities in a paradoxical solution. While the combination varies according to situation, the majority see the most impact at a high exploitation and high exploration level. Managerial ambidexterity is a multi-level construct with the managers ability to exploit and explore affected by enabling and inhibiting factors across organisational, social and internal individual-level factors. Four core competencies are identified as important for managers to achieve ambidexterity. Organisations are therefore required to recruit, develop, support and retain these competencies in their managers to drive successful ambidexterity in their organisation in order to survive in the long term. It is hoped that the research provides a practical framework for organisations and senior managers looking to increase innovation and efficiency within the organisation to drive behavioural change and managerial ambidexterity.

REFERENCES

Andriopoulos, C., & Lewis, M. W. (2009). Exploitation-Exploration tensions and organizational ambidexterity: Managing paradoxes of innovation. *Organization Science*, *20*(4), 696–717. https://doi.org/10.1287/orsc.1080.0406

Birkinshaw, J., & Gupta, K. (2013). Clarifying the distinctive contribution of ambidexterity to the field of organsation studies. *The Academy of Management Perspectives*, *27*(4), 287–298. https://doi.org/10.5465/amp.2012.0167

Birkinshaw, J., & Ridderstråle, J. (1999). Fighting the corporate immune system: a process study of subsidiary initiatives in multinational corporations. *International Business Review*, *8*(2), 149–180. https://doi.org/10.1016/S0969-5931(98)00043-2

Bloomberg, L. D., & Volpe, M. (2012). *Completing your qualitative dissertation: A road map from beginning to end.* (2nd ed.). California: Sage Publications.

Bonesso, S., Gerli, F., & Scapolan, A. (2014). The individual side of ambidexterity: Do individuals' perceptions match actual behaviors in reconciling the exploration and exploitation trade-off? *European Management Journal*, *32*(3), 392–405. https://doi.org/10.1016/j.emj.2013.07.003

Braun, V., & Clarke, V. (2013). *Successful qualitative research: A practical guide for beginners.* London: Sage Publications Ltd.

Brozovic, D. (2016). Strategic Flexibility: A review of the literature. *International Journal of Management Reviews*. https://doi.org/10.1111/ijmr.12111

Duncan, R. B. (1976). The ambidextrous organization: Designing dual structures for innovation. In R. H. Kilmann, L. R. Pondy, & D. Slevin (Eds.), *The management of organization design* (pp. 167–188). New York, NY: North-Holland.

Faisal Ahammad, M., Mook Lee, S., Malul, M., & Shoham, A. (2015). Behavioral ambidexterity: The impact of incentive schemes on productivity, motivation, and performance of employees in commercial banks. *Human Resource Management*, *54*(May), s45–s62. https://doi.org/10.1002/hrm.21668

Farjoun, M. (2010). Beyond dualism: Stabilty and change as a duality. *Academy of Management Review*, *35*(2), 202–225. https://doi.org/10.5465/AMR.2010.48463331

Felin, T., & Foss, N. J. (2005). Strategic organization: a field in search of micro-foundations. *Strategic Organization*, *3*(4), 441–455. https://doi.org/http://dx.doi.org/10.1177/1476127005055796

Gibson, C. B., & Birkinshaw, J. (2004). The antecedents, consequences, and mediating role of organizational ambidexterity. *The Academy of Management Journal*, *47*(2), 209–226. https://doi.org/10.2307/20159573

Gielink, D. (2014). *Dealing with a management paradox: exploitation versus exploration. (Unpublished master's thesis)*. University of Pretoria.

Gilbert, G., & Sutherland, M. (2013). The paradox of managing autonomy and control : An exploratory study. *South African Journal of Business Management*, *44*(1), 1–11.

Good, D., & Michel, E. J. (2013). Individual ambidexterity: Exploring and exploiting in dynamic contexts. *The Journal of Psychology*, *147*(5), 435–453. https://doi.org/10.1080/00223980.2012.710663

Gupta, A. K., Smith, K. G., & Shalley, C. E. (2006). The interplay between exploration and exploitation. *Academy of Management Journal*, *49*(4), 693–706. https://doi.org/10.5465/AMJ.2006.22083026

Hargrave, T. J., & Van de Ven, A. H. (2017). Integrating dialectical and paradox perspectives on managing contradictions in organizations. *Organization Studies*, *38*(3–4), 319–339. https://doi.org/10.1177/0170840616640843

Havermans, L. A., Den Hartog, D. N., Keegan, A., & Uhl-Bien, M. (2015). Exploring the role of leadership in enabling contextual ambidexterity. *Human Resource Management*, *54*(S1), 179–200. https://doi.org/10.1002/hrm

He, Z. L., & Wong, P. K. (2004). Exploration vs. exploitation: An empirical test of the ambidexterity hypothesis. *Organization Science*, *15*(4), 481–494. https://doi.org/10.1287/orsc.1040.0078

Jansen, J. J. P., Kostopoulos, K. C., Mihalache, O. R., & Papalexandris, A. (2016). A socio-psychological perspective on team ambidexterity : The contingency role of supportive leadership behaviours. *Journal of Mnagement Studies, 53*(6), 939-965. https://doi.org/10.1111/joms.1218

Jasmand, C., Blazevic, V., & de Ruyter, K. (2012). Generating sales while providing service: A study of customer service representatives' ambidextrous behavior. *Journal of Marketing*, *76*(1), 20–37. https://doi.org/10.1509/jm.10.0448

Junni, P., Sarala, R. M., Taras, V., & Tarba, S. Y. (2013). Organizational ambidexterity and performance: A meta-analysis. *The Academy of Management Perspectives*, *27*(4), 299–312. https://doi.org/10.5465/amp.2012.0015

Kang, S. C., & Snell, S. A. (2009). Intellectual capital architectures and ambidextrous learning: A framework for human resource management. *Journal of Management Studies*, *46*(1), 65–92. https://doi.org/10.1111/j.1467-6486.2008.00776.x

Kao, Y. L., & Chen, C. F. (2016). Antecedents, consequences and moderators of ambidextrous behaviours among frontline employees. *Management Decision*, *54*(8), 1846–1860. https://doi.org/10.1108/MD-05-2015-0187

Kauppila, O. P., & Tempelaar, M. P. (2016). The social-cognitive underpinnings of employees' ambidextrous behaviour and the supportive role of group managers' leadership. *Journal of Management Studies*, *53*(6), 1019–1044. https://doi.org/10.1111/joms.12192

Keller, J., Loewenstein, J., & Yan, J. (2017). Culture, conditions and paradoxical frames. *Organization Studies*, *38*(3–4), 539–560. https://doi.org/10.1177/0170840616685590

Keller, T., & Weibler, J. (2015). What It takes and costs to be an ambidextrous manager: Linking leadership and cognitive strain to balancing exploration and exploitation. *Journal of Leadership & Organizational Studies*, *22*(1), 54–71.

Knight, E., & Paroutis, S. (2016). Becoming salient: The TMT leader's role in shaping the interpretive context of paradoxical tensions. *Organization Studies*, (June). https://doi.org/10.1177/0170840616640844

Kortmann, S. (2014). The mediating role of strategic orientations on the relationship between ambidexterity-oriented decisions and innovative ambidexterity. *Journal of Product Innovation Management*, *32*(5), 666–684. https://doi.org/10.1111/jpim.12151

Lavie, D., Stettner, U., & Tushman, M. L. (2010). Exploration and exploitation within and across organizations. *Academy of Management Annals*, *4*(1), 109–155. https://doi.org/10.1080/19416521003691287

Lewis, M. W., & Smith, W. K. (2014). Paradox as a metatheoretical perspective. *The Journal of Applied Behavioral Science*, *50*(2), 127–149. https://doi.org/10.1177/0021886314522322

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Lewis, M. W., Andriopoulos, C., & Smith, W. K. (2014). Paradoxical leadership to enable strategic agility. *California Management Review*, *56*(3), 58–77. https://doi.org/10.1525/cmr.2014.56.3.58.

Louw, K., Sutherland, M., & Hofmeyr, K. (2012). Enabling and inhibiting factors of productive organisational energy. *South African Journal of Labour Relations*, *36*(2). Retrieved from http://repository.up.ac.za/bitstream/handle/2263/19972/Louw_Enabling%282012%29.pdf?sequence=1&isAllowed=y

Luo, Y. (2002). Capability exploitation and building in a foreign market: Implications for multinational enterprises. *Organization Science*, *13*(1), 48–63. https://doi.org/10.1287/orsc.13.1.48.538

Luscher, L. S., & Lewis, M. W. (2008). Organizational change and manegerial sensemaking: Working through paradox. *Academy of Management Journal*, *51*(2), 221–240. https://doi.org/10.5465/AMJ.2008.31767217

March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization Science*, *2*(1), 71–88. https://doi.org/10.1287/mnsc.43.7.934

Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative Research. A guide to design and implementation.* (Fourth). San Francisco: Jossey-Bass.

Miron-spektor, E., Gino, F., & Argote, L. (2011). Organizational behavior and human decision processes Paradoxical frames and creative sparks : Enhancing individual creativity through conflict and integration. *Organizational Behavior and Human Decision Processes*, *116*(2), 229–240. https://doi.org/10.1016/j.obhdp.2011.03.006

Mom, T. J. M., Fourné, S. P., & Jansen, J. J. (2015). Managers' work experience, ambidexterity, and performance: The contingency role of the work context. *Human Resource Management*, *54*(S1), 133–153.

Mom, T. J. M., van den Bosch, F. A. J., & Volberda, H. W. (2009). Understanding variation in managers' ambidexterity: Investigating direct and interaction effects of formal structural and personal coordination mechanisms. *Organization Science*, *20*(4), 812–828. https://doi.org/10.1287/orsc.1090.0427

Myers, M. D. (2013). *Qualitative research in business and management.* California: Sage Publications.

Naidoo, S., & Sutherland, M. (2016). A management dilemma: Positioning employees for internal competition versus internal collaboration. Is coopetition possible? *South African Journal of Business Management*, *47*(1), 75–87. Retrieved from http://www.redi-bw.de/db/ebsco.php/search.ebscohost.com/login.aspx?direct=true&db=buh&AN=116077091&site=ehost-live

Nosella, A., Cantarello, S., & Filippini, R. (2012). The intellectual structure of organizational ambidexterity : A bibliographic investigation into the state of the art. *Strategic Orientation*, *10*(4), 450–465. https://doi.org/10.1177/1476127012457979

O'Reilly, C. A., & Tushman, M. L. (2013). Organizational ambidexterity: Past, present and future. *The Academy of Management Perspectives*, *27*(4), 324–338. https://doi.org/10.5465/amp.2013.0025

O'Reilly, C. A., & Tushman, M. L. (2004). The ambidextrous organization. *Harvard Business Review*, *82*(4), 74–81. Retrieved from http://search.proquest.com/docview/202718627?accountid=14719%0Ahttp://openurl.uquebec.ca:9003/uqam?url_ver=Z39.88-2004&rft_val_fmt=info:ofi/fmt:kev:mtx:journal&genre=article&sid=ProQ:ProQ%3Aa

biglobal&atitle=The+ambidextrous+organization&title=The+Journal+

O'Reilly, C. A., & Tushman, M. L. (2007). Ambidexterity as a dynamic capability: Resolving the innovator's dilemma. *Journal of Management*, *28*, 185–206. https://doi.org/10.1080/01933928108411685

Papachroni, A., Heracleous, L., & Paroutis, S. (2015). Organizational ambidexterity through the lens of paradox theory; Extending the research agenda. *Journal of Applied Behavioral Science*, *51*(1), 71–93. https://doi.org/10.1177/0021886314553101

Papachroni, A., Heracleous, L., & Paroutis, S. (2016). In pursuit of ambidexterity: Managerial reactions to innovation–efficiency tensions. *Human Relations*, *69*(9), 1791–1822. https://doi.org/10.1177/0018726715625343

Parker, S. K. (2014). Beyond motivation: Job and work design for development, health, ambidexterity, and more. *Annual Review of Psychology*, *65*(1), 661–691. https://doi.org/10.1146/annurev-psych-010213-115208

Patel, P. C., Messersmith, J. G., & Lepak, D. P. (2013). Walking the tightrope: An assessment of the relationship between high-performance work systems and organizational ambidexterity. *Academy of Management Journal*, *56*(5), 1420–1442. https://doi.org/10.5465/amj.2011.0255

Putnam, L. L., Fairhurst, G. T., & Banghart, S. (2016). Contradictions, dialectics, and paradoxes in organizations: A constitutive approach. *The Academy of Management Annals*, *10*(1), 65–171. https://doi.org/10.1080/19416520.2016.1162421

Raisch, S., & Birkinshaw, J. (2008). Organizational ambidexterity: Antecedents, outcomes, and moderators. *Journal of Management*, *34*(3), 375–409. https://doi.org/10.1177/0149206308316058

Raisch, S., Birkinshaw, J., Probst, G., & Tushman, M. L. (2009). Organizational ambidexterity: Balancing exploitation and exploration for sustained performance. *Organization Science*, *20*(4), 685–695. https://doi.org/10.1287/orsc.1090.0428

Robbins, S. P., & Judge, T. A. (2015). *Organisational Behavior.* (16th Editi). Essex: Pearson Education Limited.

Rogan, M., & Mors, M. L. (2014). A network perspective on individual-level ambidexterity in organizations. *Organization Science*, *25*(6), 1860–1877. https://doi.org/10.1287/orsc.2014.0901

Rosing, K., & Zacher, H. (2017). Individual ambidexterity: the duality of exploration and exploitation and its relationship with innovative performance. *European Journal of Work and Organizational Psychology*, *26*(5), 694–709. https://doi.org/10.1080/1359432X.2016.1238358

Saunders, M., & Lewis, P. (2012). *Doing research in business & management, An essential guide to planning your project* (first). Essex: Person Education Limited.

Schad, J., Lewis, M. W., Raisch, S., & Smith, W. K. (2016). Paradox research in management science : Looking back to move forward. *The Academy of Management Annals*, *10*(1), 1–60. https://doi.org/10.1080/19416520.2016.1162422

Simsek, Z. (2009). Organizational ambidexterity : Towards a multilevel understanding. *Journal of Management Studies*, *46*(4), 597–624. https://doi.org/10.1111/j.1467-6486.2009.00828.x

Smith, W. K. (2014). Dynamic decision making: A model of senior leaders managing strategic paradoxes. *Academy of Management Journal*, *57*(6), 1592–1623.

https://doi.org/10.5465/amj.2011.0932

Smith, W. K., Erez, M., Jarvenpaa, S., Lewis, M. W., & Tracey, P. (2017). Adding complexity to theories of paradox , tensions , and dualities of innovation and change: introduction to Organization Studies Special Issue on paradox , tensions, and Dualities of innovation and change. *Organization Studies*, *38 (3-4)*, 303–317.

Smith, W. K., & Lewis, M. W. (2011). Toward a theory of paradox : A dynamic equilibrium model of organizing. *The Academy of Management Review*, *36*(2), 381–403. https://doi.org/10.5465/AMR.2011.59330958

Smith, W. K., & Tushman, M. L. (2005). Managing strategic contradictions: A top management model for managing innovation streams. *Organization Science*, *16*(5), 522–536. https://doi.org/10.1287/orsc.1050.0134

Swanson, D. J., & Creed, A. S. (2014). Sharpening the focus of force field analysis. *Journal of Change Management*, *14*(1), 28–47. https://doi.org/10.1080/14697017.2013.788052

Taródy, D. (2016). Organizational ambidexterity as a new research paradigm in strategic management. *Vezetéstudomány / Budapest Management Review*, *82*(4), 39–52.

Tse, T. (2013). Paradox resolution: A means to achieve strategic innovation. *European Management Journal*, *31*(6), 682–696. https://doi.org/10.1016/j.emj.2013.05.001

Turner, N., & Lee-Kelley, L. (2012). Unpacking the theory on ambidexterity: An illustrative case on the managerial architectures, mechanisms and dynamics. *Management Learning*, *44*(2), 179–196. https://doi.org/10.1177/1350507612444074

Turner, N., Swart, J., & Maylor, H. (2013). Mechanisms for managing ambidexterity: A review and research agenda. *International Journal of Management Reviews*, *15*(3), 317–332. https://doi.org/10.1111/j.1468-2370.2012.00343.x

Tushman, M. L., & O'Reilly, C. A. (1996). Ambidextrous organizations: Managing evolutionary and revolutionary change. *California Management Review*, *38*(4), 8–30. https://doi.org/10.1080/09652540903536982

Wang, C. L., & Rafiq, M. (2014). Ambidextrous organizational culture, contextual ambidexterity and new product innovation: A comparative study of UK and Chinese high-tech firms. *British Journal of Management*, *25*(1), 58–76. https://doi.org/10.1111/j.1467-8551.2012.00832.x

Zacher, H., & Rosing, K. (2015). Ambidextrous leadership and team innovation. *Leadership & Organization Development Journal*, *36*(1), 54–68.

APPENDIX 1: CONSISTENCY MATRIX

Research Question	Literature Review	Interview Q's	Analysis
1. What are the **enabling** factors and the **inhibiting** factors that influence managers to adopt **exploitation** practices?	Gibson & Birkinshaw, 2004; Lavie et al., 2010; Mom et al., 2015; Raisch et al., 2009; Rogan & Mors, 2014; Rosing & Zacher, 2017; Simsek, 2009; Turner et al., 2013	**Q4a.** What do you see as the factors that enable your own exploitation activities? **Q4b.** Which of these factors is the most dominant and why? **Q5a.** What are the factors that inhibit your own exploitation activities? **Q5b.** Which of these factors is the most dominant and why?	Thematic content analysis and frequency analysis on open-ended questions
2. What are the perceived **benefits** and **negatives** to the individual of adopting **exploitation** practices?	Taródy, 2016; O'Reilly & Tushman, 2007;	**Q1b.** How does it make you feel? / How do you feel about it? [**previous question: 1a.** In your role can you tell me about the things, your individual activities, you repeat in the same way or evolve in a continuous way to achieve efficiency or operational excellence?] **Q2.** What are the benefits of adopting an exploitation (efficiency) approach? **Q3.** What are the negatives of adopting an exploitation (efficiency) approach?	Thematic content analysis and frequency analysis on open-ended questions
3. What are the **enabling** factors and the **inhibiting** factors that influence	Gibson & Birkinshaw, 2004; Lavie et al., 2010; Mom et al., 2015; Raisch et al., 2009;	**Q9a.** What do you see as the factors that enable your own exploration activities? **Q9b.** Which of these factors is the most dominant and why?	Thematic content analysis and frequency

managers to adopt **exploration** practices?	Rogan & Mors, 2014; Rosing & Zacher, 2017; Simsek, 2009; Turner et al., 2013	**Q10a.** What are the factors that inhibit your own exploration activities? **Q10b**. Which of these factors is the most dominant and why?	analysis on open-ended questions
4. What are the perceived **benefits** and **negatives** to the individual of adopting **exploration** practices?	Taródy, 2016; O'Reilly & Tushman, 2007; Parker, 2014; Rosing & Zacher, 2017;	**Q6b**. How does it make you feel? / How do you feel about it? [**Previous question: Q6a.** In your role can you tell me about your individual activities that involve seeking new ways of doing things or new knowledge, to achieve step change in performance?] **Q7.** What are the benefits of adopting an exploration (innovation) approach? **Q8.** What are the negatives of adopting an exploration (innovation) approach?	Thematic content analysis and frequency analysis on open-ended questions
5. What are the **trade-offs** between exploitation and exploration?	Farjoun, 2010; Lewis et al., 2014; Naidoo & Sutherland, 2016; Smith & Lewis, 2011; Smith et. al., 2017; Putnam et al., 2016; Schad et al., 2017	**Q11**. What do you believe are the trade-offs to be made by individual managers in pursuit of managerial ambidexterity?	Thematic content analysis and frequency analysis on open-ended questions
6. How can managers achieve **ambidexterity** (ie simultaneously achieve high exploitation and high exploration personal (and	Good & Michel, 2013; Farjoun, 2010; Junni et al., 2013; March, 1991; Naidoo & Sutherland, 2016; O'Reilly & Tushman, 2007; Raisch & Birkinshaw,	**Q12**. Please indicate what you believe is the most appropriate balance of time, as a percentage, an individual manager at your level should be spending between exploitation (efficiency) and exploration (innovation) activities? **Q12 supplement:** Please explain your reasoning?	Thematic content analysis and frequency analysis on open-ended questions

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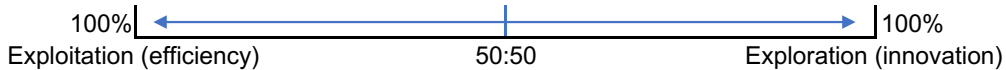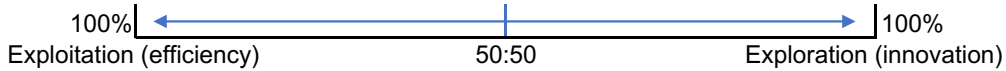
| organisational) practices to improve organisational performance? | 2008; Schad et al., 2017; Taródy, 2016; Turner et al., 2013; | **Q13**. Where do you think your own current balance is?

Q13 supplement: Please explain your reasoning? What is the cause?

Q14. Alternatively, do you balance exploitation and exploration as represented in the diagram? If so, where do you plot yourself **a)** in terms of current TIME (T) and **b)** where would you plot yourself in order to achieve maximum IMPACT (I)
Q14 supplement: Please explain your reasoning?

Q15. What competencies do you believe enable a manager to achieve managerial ambidexterity? (ie achieve balance / appropriate combination of exploitation (efficiency) and exploration (innovation) activities?) | |
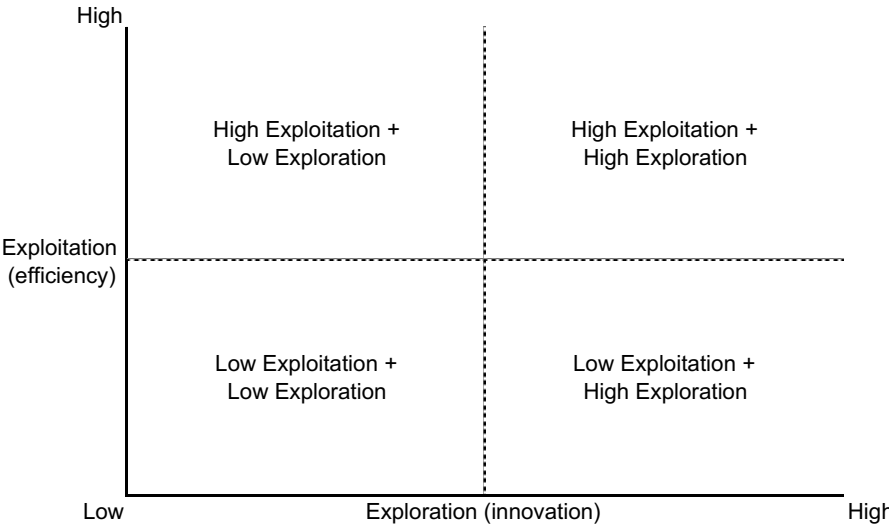
APPENDIX 2: INTERVIEW GUIDE

Interview Questions
As we have already discussed I am interested to understand your personal experience and views about how you personally balance exploration and exploitation activities.
Exploitation - Efficiency
Are you comfortable with what we meaning by Exploitation?   • **Exploitation has to do with your personal activities doing the same thing but more efficiently through existing routines and refinement.**   • It is also used to refer to focusing on existing competencies or from an innovation perspective to incremental innovation (minor adaptations of existing products and business concepts to meet existing customer needs).

1a 1b	In your role can you tell me about the things, **your individual activities**, you **repeat in the same way or evolve in a continuous** way to achieve **efficiency** or operational excellence? How does it make you feel? / How do you feel about it?
2	What are the **benefits** of adopting an exploitation (efficiency) approach?
3	What are the **negatives** of adopting an exploitation (efficiency) approach?
4a	What do you see as the factors that **enable** your own exploitation activities?

	Enabling Factors	Internal	External
1			
2			
3			
4			
5			

***Notes**: Prompt for 5; record in order given; Note factors as internal or external*

4b	Which factor(s) is the most **dominant** and why?		

5a	What are the factors that **inhibit** your exploitation activities?		

		Inhibiting Factors	Internal	External
	1			
	2			
	3			
	4			
	5			

Notes: *Prompt for 5; record in order given; Note factors as internal or external*

5b	Which factor(s) is the most **dominant** and why?

Exploration – Innovation; Experimentation	
	Are you comfortable with what we meaning by Exploration? • **Exploration has to do with your personal activities experimenting and searching for new innovative ways of doing business.** • It involves risk taking, variance, diversification and change • It is also used to refer to building new competencies or from an innovation perspective to radical, disruptive innovation (fundamental changes leading to new products or business concepts to meet emergent customer needs).
6a	In your role can you tell me about your **individual activities** that involve **seeking new ways of doing things or new knowledge**, to achieve **step change** in performance?
6b	How does it make you feel? / How do you feel about it?
7	What are the **benefits** of adopting an exploration (innovation) approach?

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8	What are the **negatives** of adopting an exploration (innovation) approach?

9a	What do you see as the factors that **enable** your own **exploration** activities?

	Enabling Factors	Internal	External
1			
2			
3			
4			
5			

Notes: *Prompt for 5; record in order given; Note factors as internal or external*

9b	Which factor(s) are most **dominant** and why?

10a	What are the factors that **inhibit** your **exploration** activities?

	Inhibiting Factors	Internal	External
1			
2			
3			
4			
5			

Notes: *Prompt for 5; record in order given; Note factors as internal or external*

10b	Which factor(s) are most **dominant** and why?

	Paradox Management – managerial ambidexterity
	Now I would like to discuss the topic of 'managerial ambidexterity'. 'Managerial Ambidexterity' is a manager's ability to balance or combine his or her activities to achieve efficiency with their activities to achieve innovation (new ways of doing business).
11	What do you believe are the trade-offs to be made by managers in pursuit of managerial ambidexterity?
12	Please indicate what you believe is the most appropriate balance of time, as a percentage, an individual manager at your level should be spending between exploration and exploitation activities? 100% ←————————————│————————————→ 100% Exploitation (efficiency)　　　　50:50　　　　Exploration (innovation) Please explain your reasoning?
13	Where do you think your own current balance is? 100% ←————————————│————————————→ 100% Exploitation (efficiency)　　　　50:50　　　　Exploration (innovation) Please explain your reasoning? What is the cause?

14	Alternatively, do you balance exploitation and exploration as represented in the diagram? If so, where do you plot yourself **a)** in terms of current TIME (T) and **b)** where would you plot yourself in order to achieve maximum IMPACT (I)
	High
	High Exploitation + Low Exploration High Exploitation + High Exploration
	Exploitation (efficiency)
	Low Exploitation + Low Exploration Low Exploitation + High Exploration
	Low Exploration (innovation) High
	Please explain your reasoning?
15	What competencies do you believe enable a manager to achieve balance / appropriate combination of exploitation and exploration activities?
16	To close is there anything you thing else you would like to add?

APPENDIX 3:   INTERVIEW DEFINITION SHEET

DEFINITION SHEET

	EXPLOITATION (EFFICIENCY)	**EXPLORATION (INNOVATION)**
Personal activities -	• **Doing the same thing but more efficiently**	• **Searching and experimenting new ways of doing things**
It involves	• Developing existing knowledge • Routines and Refinement • Variance reduction • Creating reliability in experience	• Gaining new knowledge • Risk taking • Experimentation • Search
It signifies	• Evolutionary change (continuous improvement) • Alignment	• Revolutionary change (step change) • Adaptability
Innovation: It refers to	• **Incremental innovation** • Minor adaptations of existing business concepts or products to meet existing customer needs.	• **Radical or discontinuous innovation** • Fundamental changes leading to new business concepts or products to meet emergent / new customer needs.
DILEMMA		
A dilemma involves competing choices, with each having advantages and disadvantages. The seemingly incompatible nature of exploitation (efficiency) and exploration (innovation) creates tension due to competition for finite resources thus presenting a management dilemma.		
TRADE OFF or PARADOX		
Solving a dilemma involves weighing up the pros and cons of competing choices. Reconciliation of the tensions and conflicting demands of exploitation and exploration can be managed as a trade-off or as a paradox: • A trade-off perspective suggests that resolving the tensions requires either/or solutions. **REQUIRES BALANCE** • A paradoxical perspective suggests that resolving the tensions requires creative, both/and solutions. **REQUIRES COMBINATION**		
ORGANISATIONAL AMBIDEXTERITY		
The ability of a firm to simultaneously exploit and explore.		
MANAGERIAL ABIDEXTERITY		
An individual manager's ability to balance or combine his/her activities to achieve efficiency (exploitation) and innovation (exploration).		

APPENDIX 4:   INTERVIEW CONSENT LETTER

<u>Exploring the paradox of managerial ambidexterity in exploitation versus exploration.</u>

I am conducting research on the management dilemma of exploration versus exploitation and how the resulting tensions are managed by individual managers in an organisation. I am trying to understand the enabling and inhibiting factors facilitating individual's choices about the relative emphasis on exploration and exploitation.

Exploitation involves improving efficiencies and developing knowledge through existing routines and refinement. It is also used to refer to focusing on the existing competencies or from an innovation perspective to incremental innovation (minor adaptations of existing products and business concepts to meet existing customer needs).

Whereas, exploration involves creating knowledge through experimenting and searching for new innovative ways of doing business. It involves risk taking and variance. It is also used to refer to diversification, change or building new competencies or from an innovation perspective to radical, disruptive innovation (fundamental changes leading to new products or business concepts to meet emergent customer needs).

Your personal experience and views on tensions and trade-offs between exploitation (efficiency) and exploration (innovation) will form the basis of this interview. Expected interview length is 60 minutes and your participation is voluntary. You can withdraw at any time without penalty and all data will be aggregated, reported anonymously and hence confidential.

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

Researcher: Ramie Booth
Email: ramie.booth@mac.com ; Tel: 063 0940404
Research supervisor: Margie Sutherland
Email: sutherlandm@gibds.co.za ; Tel:

Signature of participant: Date:
Title of Participant:
Signature of researcher: Date:

APPENDIX 5: ETHICS CLEARANCE APPROVAL

Gordon
Institute
of Business
Science
University
of Pretoria

31 May 2017

Ramie Booth

Dear Ramie Booth,

Please be advised that your application for Ethical Clearance has been approved.

You are therefore allowed to continue collecting your data.

We wish you everything of the best for the rest of the project.

Kind Regards

GIBS MBA Research Ethical Clearance Committee

Gordon Institute of Business Science
Reg. No. 99/19816/08

26 Melville Road, Illovo, Johannesburg
PO Box 787602, Sandton, 2146, South Africa

telephone (+27) 11 771 4000
fax (+27) 11 771 4177

website gibs.co.za
University of Pretoria

v3.2 Managerial Ambidexterity Analysis

A3 — An Innovation Culture

Theme	Codes	Freque	Co A	Co B	Exec	Non-Ex	Quotes		Quotes	
An Innovation Culture	Culture at corporate level; Culture within the peer environment; Fail often but quickly; Acceptance of Risk taking; Acceptance of new ideas	12	7	5	7	5	The corporate 'fail often but quickly' [mantra] is really encouraging. I think people are still nervous to fail. But at least you know the company gives you a safety net	TMT A	an enabling environment to share freely rather than being seen as... crazy. And acceptance of risk taking. When my peers are talking about, sharing new ideas, new concepts I am encouraged	MM A
Empowering leadership	An empowering local leadership; An empowering area leadership; Leadership which encourages risk taking; Leadership which encourage challenge	12	8	4	5	7	"It all comes down to what comfort you are given about what your parameters are"	TMT A	"Managers have to be supportive for you to step out of your comfort zone"	MM B
Collaboration	Working with or as part of an engaged, diverse and aligned to exploration team; Team composition, norms, roles and objectives aligned to exploration	9	5	4	5	4	For me, engaging with others from the different businesses... roles and functions within the company as well as across the region.	MM A	I think the team side is from a skillset perspective, to help you [as a manager] to get where you want to get.	MM A
Diversity of experience	Diversity of experience; Understanding other functions; Having exposure to new tools; Having xposure to new scenarios; See linkages and interrelations due experience	7	7	2	6	1	[diversity of experience] enables ability to see opportunities for bigger company	TMT A	Experience gives you the intuition to know when to adopt which style; "throughout your career you're learning new tools and from scenarios to understand different situations"	TMT A
Mind-set, cognitive sytle and attitudes	Natural style of questioning; challenging mind-set; Pioneering mind-set; Creative mind	7	4	3	4	3	"I have had to figure out and find new innovative ways and be a pioneer for a lot of things like order intake [reciept of customer orders] and getting involved in things. I've rolled my sleeves up and had to make things better. The learning is great."	MM B	"Mindset of understanding 'if we did do this what would be the outcome', you know its that questioning." Outcome thinking	MM A
Learning Appetite	Personal thirst for insights, learning curiosity; Willingness to learn from mistakes	7	2	5	3	4	spaces there is no capability in place, for example when I went into my clinics and we added solar and water and things... the problem I am having inorder to understand to control it I have to go through the learning curve to do it, right. So you need to build that, the willingness to say OK that mistakes, you know next time we not do that mistake we do	TMT B	people on board... Skills needed would be creative minds, people who are analytical, understand the market, ability to learn. Because you have two mindsets, this is what I have done, other side people have ability to observe and learn and make the right decisions.	MM B

problem solving skill-

"As an organisation you need the right people on...

sleeves and wanting to get the job done. so...

Sheet tabs: Q6b Feel (2) | Q7 Benefit (2) | Q8 Negatives (2) | Q9 Enablers (2) | Q10 Inhibit (2) | Q11 Trade offs | Q12 and Q13 | Q14 Paradox | Q15 Competencies | Q16 Additional

Table 26: Enabling Factors for Individual Managers' Exploitation Activities (By Manager Level and Company)

Rank	Enablers of Exploitation	Level	Frequency				
			Total	TMT	MM	Co A	Co B
1	Diversity of personal business experience	I	10	5	5	5	5
2	Systems, processes, methodologies and cadence throughout the organisation	O	9	4	5	2	7
2	Personal motivation and ambition: for excellence, improvement, learning, progression (Intrinsic Motivator)	I	9	5	4	7	2
4	Clear objectives, KPI's and appraisal system aligned to exploitation (Extrinsic Motivator)	O	8	6	2	3	5
4	Mind-set - a continuous improvement; process orientation; open mind-set; customer centric mind-set	I	8	3	5	6	2
6	Corporate strategy and initiatives	O	7	4	3	3	4
7	Business transformation team - clear organisational structure with human resources to support exploitation activities	OS	6	3	3		6
7	Collaboration: Working with or as an engaged, diverse and aligned team (composition, norms, roles and objectives)	S	6	5	1	5	1
9	Organisational culture and environment	O	4	2	2	3	1
9	Training and skill set / toolbox (six sigma & CI)	I	4	2	2	1	3
9	Personal network (strength, diversity, density) and relationships	S	4	3	1	4	
9	Being analytical and alert to opportunities	I	4	2	2	3	1
13	Personal leadership skills (persuasion and negotiation)	I	3	2	1	2	1
14	Insight of businesses and processes	I	2	2		2	
16	Individual problem-solving skills (methodical, logical, enquiring, evaluative)	I	2	1	1		2
17	Change management skills / Being a change agent (leading continuous change initiatives)	I	1	1			1
18	Local Leadership Themes	O	1	1		1	
19	Locus of control (accountability for exploitation)	O	1	1		1	
20	The current results situation (Environmental and contextual pressure)	O	1		1		1
21	Zero supervision (empowerment)	O	1		1		1

Key: Level of factors: I – Internal individual-level; S – Social-level; O – Organisation-level

Table 27: Inhibiting Factors for Individual Managers' Exploitation Activities (By Manager Level and Company)

Rank	Inhibitors of Exploitation	Level	Frequency				
			Total	TMT	MM	Co A	Co B
1	Centralisation - Approval process - misalignment to local needs; Inflexible processes - not aligned to efficiency	O	7	1	6	3	4
1	Boredom and aspiration to create	I	7	4	3	2	5
3	Poor compliance of others - others as inputs into or outputs from Continuous Improvement)	S	5	2	3	4	1
3	Contextual dynamics - Market reality means you can't follow the standard way of working; Environmental crisis and ensuing distractions	O	5	4	1	1	4
5	Diminishing returns - the effort outweighs the benefit	O	4	2	2	2	2
5	System failure - Lack of access to systems or inflexible legacy or duplicate systems, tools and information	O	4	2	2	1	3
7	Change Resistance and poor change management	I S	3	1	2	3	
7	Lack of Continuous Improvement mind-set / natural thinking pattern not aligned to CI (cognitive frame)	I	3	3	1	1	2
7	Resource capacity - being too lean creates a lack of time	OI	3	3		2	1
10	Conflicting priorities of silos	O	2	1	1		2
10	Low role tenure - turnover of temporary staff, learning for exploitation is compromised	O	2	1	1	2	
10	Unclear leadership direction and failure to cascade objectives into KPI's throughout the organisation	O	2	1	1		2
13	A manager's personal change agility	I	1	1		1	
13	Lack of self-awareness (emotional intelligence - EQ)	I	1	1			1
13	Subsidiary context - small relative size of subsidiary	O	1	1			1

Key: *Level of factors: I – internal individual-level; S – Social-level; O – Organisation-level*

Table 28: Enabling Factors for Individual Managers' Exploration Activities. (By Manager Level and Company)

Rank	Enablers of Exploration	Level	Frequency				
			Total	TMT	MM	Co A	Co B
1	An innovation culture – at corporate level and within the peer environment	OS	12	7	5	7	5
1	An empowering Leadership - local and area leadership which encourages risk taking; encourages challenge; forgiving of mistakes	O	12	5	7	8	4
3	Collaboration & team membership - working with or as part of an engaged, diverse and aligned team (composition, norms, roles and objectives)	S	9	5	4	5	4
4	Diversity of experience - functional diversity, diversity of exposure, skills and tool development, intuition development	I	7	6	1	5	2
4	Mind-set– challenging, pioneering, creative mind	I	7	4	3	4	3
4	Individuals motivation and ambition - Not being fulfilled with the status quo or current situation); drive to exceed	I	7	5	2	5	2
4	Learning orientation - personal thirst for insights, learning; curiosity; willing to learn from mistakes	I	7	3	4	2	5
4	Problem solving skill-sets - lateral thinking; questioning, 5 whys	I	7	3	4	3	4
9	Influence and persuade - upwards to gain buy in from leadership	I	6	3	3	4	2
10	Contextual dynamics and business results - ahead of plan provides space for exploration; behind plan provides catalyst for exploration	O	5	5		4	1
11	Action Orientated with tenacity and perseverance	I	3	1	2	1	2
11	Having KPI's, Appraisals, Reward and Recognition aligned to exploration	O	3	2	1	1	2
11	Personal Network - strength, diversity, density of relationships	S	3	1	2	1	2
11	Appropriate Training and Development	I	3	2	1	3	
11	Contextual dynamics - Market reality means you can't follow the standard way of working	O	3	2	1		3
11	Delegation – having a team to deliver exploitation	S	3	2	2	3	
16	EQ - being self-aware; maturity; having a low ego; knowing your natural abilities; knowing when to collaborate	I	3	2	1	1	2
16	Having vision and being able to see the bigger picture	I	2	1	1	1	1
16	Having the buy in and support of the Global team for the exploration market strategy - permission, cash, flexibility	O	2	1	1		2
16	Personal risk management - through multiple projects; being prepared with alternatives	I	2	2		1	1
16	Achieving strategic fit and alignment of exploration	O	2	2			2
16	Being new – to organisation or role	I	2		2	1	1

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Rank		Level	Total	TMT	MM	Co A	Co B
21	Mind-set Agility - ability to think strategically and operationally	I	1	1			1
21	Collaboration - with external experts and with ecosystems	S	1	1			1
21	Continuous Improvement - Methodology and structure	O	1		1		1
21	Innovators located within the business stimulates people to think differently	S	1	1			1
21	Mentoring and coaching from supervisor or other	S	1		1	1	
21	My role expectations; being accountable for exploration	O	1	1		1	
21	Having tolerance of risk on a personal level	I	1	1			1
21	Global Strategy	O	1	1			1

Key: *Level of factors: I – Internal individual-level; S – Social-level; O – Organisation-level*

Table 29: Inhibitors for Individual Managers' Exploration (By Manager Level and Company)

Rank	Inhibitors of Exploration	Level	Frequency				
			Total	TMT	MM	Co A	Co B
1	Short-term operational demands of role which necessitate prioritisation of efficiency (exploitation)	O	8	6	2	7	1
2	KPI which are exploitation focused / Reward and Recognition not aligned to exploration	O	7	6	1	4	3
3	Structural Complexities	O	5	2	3	3	2
4	Gaps in personal abilities, skills and/or inexperience	I	4	2	2	2	2
5	A risk averse corporate culture	O	4	1	3		4
6	Capacity issues and operating with lean resources	O	4	3	1	4	
7	MNE Globalisation exploitation strategy	O	4	3	1	2	2
8	Lack of local senior leadership support for innovation	O	3		3		3
9	Change resistance resulting from asking people who want to follow standard process to do something different	S	2	2			2
10	Micromanagement	S	2		2	2	
11	Missing Methodology, Frameworks and sharing platforms	O	2	1	1	1	1
12	My role and/or business does not offer flexibility for radical change	O	2	1	1	2	
13	Fear of failure - individual risk aversion	I	2	1	1	2	
14	Internal recruitment restrictions	O	1	1		1	
15	Lack of effective Change Management approach for buy in	I	1		1	1	
16	Lack of networks and influence	I	1		1		1
17	The egos of others	S	1	1			1
18	Personal struggle with Change Agility	I	1	1		1	
19	Environmental crisis and ensuing re-prioritisation of short term (Contextual dynamics)	O	1	1			1

Key: *Level of factors: I – Internal individual-level; S – Social-level; O – Organisation-level*

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Table 30: How Managers Feel About Exploitation Activities (By Manager Level and Company)

Rank	Individual Exploitation	Category of feeling	Frequency Total	TMT	MM	Co A	Co B
1	This is my thing; I feel happy; I feel comfortable	Highly Positive	8	5	3	5	3
2	It gives me a sense of achievement or accomplishment	Positive	6	5	1	4	2
3	It's a 'means to an end'	Acceptance	5	3	2	4	1
3	Repeating the same things makes me bored	Negative	4	2	2	1	3
5	I have a preference for explore but as a manager you need to balance both; they work together	Acceptance	3	2	1		3
6	I try to spend more time in exploitation	Acceptance	2	1	1		2
7	It is an ingrained way of working for me	Positive	2	1	1	2	
8	It's painful (incremental adaptation)	Highly Negative	1	1			1

Table 31: Benefits of Exploitation (By Manager Level and Company)

Rank	Benefits of Exploitation	Frequency Total	TMT	MM	Co A	Co B
1	Enables a manager to work smarter and make better decisions	8	3	5	4	4
1	Increases speed of operations and decision making	8	6	2	6	2
1	Optimisation; Efficiency - reduces waste; increase productivity; do more with less	8	5	3	5	3
4	It increases (personal and team) motivation, morale and engagement	5	4	1	4	1
4	It actually frees up time and resources to spend on 'exploration'	5	2	3	3	2
6	Continuous improvement provides a catalyst for future projects	4	3	1	3	1
6	It identifies replication opportunities to unlock value; exponential improvements	4	3	1	3	1
6	Stability, predictability, collaboration, reduced risk, increased safety	4	2	2		4
9	Raises managers own credibility regarding delivery	3	3		2	1
10	Enables strategic alignment - Local to Global	2	2		1	1
10	Clearly show shareholders the companies operating efficiently	2	1	1	2	
10	Enables compliance to standards	2	1	1	1	1
10	Enables compliance to or satisfaction of customer needs	2		2	2	
14	It improves retention of staff	1	2		1	
14	Creates new learning	1		1		1
14	No Benefit to me personally; it doesn't satisfy	1		1		1

Table 32: Negatives of Exploitation (By Manager Level and Company)

Rank	Negatives of Exploitation	Total	TMT	MM	Co A	Co B
1	Can stifle innovation and creativity	6	1	5	2	4
2	Its takes time and effort to review for improvement	5	3	2	3	2
3	It can lead to personal boredom	4	2	2	1	3
3	It is short to medium term focussed (win now fail later); it inhibits strategic thinking	4	3	1	2	2
3	Overdone can damage engagement and team motivation	4	3	1	3	1
6	Leads to incrementalism	2		2	1	1
7	Miss environmental change (internally focussed)	2	1	1	1	1
8	Can lead to blind replication	1	1		1	
9	Getting bogged down in processes	1	1		1	
10	It distracts me from being with customers	1	1		1	
11	It inhibits critical thinking and rationalisation	1	1			1
12	Lack of learning	1	1		1	
13	No negatives for efficiency	1	1			1
14	Processes are not relevant for Africa, market is different and standard ways are not working	1	1			1

Table 33: How Managers Feel About Exploration Activities (By Manager Level and Company)

Rank	Individual Exploration	Category of feeling	Total	TMT	MM	Co A	Co B
1	I feel Energised, engaged, challenged and/or excited	Highly Positive	8	4	4	4	4
2	Love working here (in the exploration space)	Highly Positive	7	4	3	3	4
3	I feel like a challenger of the status quo, thinking outside the box	Positive	4	4		3	1
4	I feel less comfortable here	Negative	3	2	1	2	1
5	I feel frustrated	Negative	2	1	1	1	1
5	I feel Fulfilled	Positive	2	1	1	2	
5	I want to spend more time in this space	Positive	2		2	1	1
6	The team interaction is great (during exploration)	Positive	1		1		1
6	I feel I want to change jobs (due to being unfulfilled in this area)	Positive (negative about current)	1		1		1

Table 34: Benefits of Exploration Activities (By Manager Level and Company)

Rank	Benefits of Exploration	Frequency				
		Total	TMT	MM	Co A	Co B
1	Enables personal development and learning - stretching personal boundaries, feeds personal change	9	5	4	5	4
2	Keeps business ahead and relevant; provides leapfrog performance	6	4	2	4	2
2	Provides a sense of accomplishment, recognition and delivers success - for the business, the individual and your team	6	4	2	2	4
4	I feel more energised, engaged, motivated and committed	5	2	3	2	3
5	Prevents getting caught up in the efficiency cycle	3	2	1	3	
5	Spurs exploitation opportunities	3	3		1	2
5	Enables more effective team engagement - Gets the team energised, cascade passion	3	2	1	2	1
8	Enables attracting and retaining the right talent	1		1	1	
8	Spurs further exploration - facilitates cross fertilisation	1	1		1	
8	Is future orientated	1	1		1	

Table 35: Negatives of Exploration Activities (By Manager Level and Company)

Rank	Negatives of Exploration	Frequency				
		Total	TMT	MM	Co A	Co B
1	Can create chaos and/or loss of focus	11	7	4	5	6
2	It introduces risk and uncertainty - the impact of failure is much greater than with exploitation	6	5	1	3	3
3	Learning and efforts are not recognised in this space	4	2	2		2
4	Takes time; spend too much time	2		2	2	
4	Creates change conflict	2	2		1	1
4	It's frustrating on a personal level - it's painstaking and high effort	2	1	1		2
7	Discovering certain parts of your personality you don't like	1	1		1	
7	Costly in a small market	1	1			1

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Table 36: Perceived Trade-Offs to be Made By Managers in Pursuit of Ambidexterity (By Manager Level and Company)

Rank	Trade-offs Efficiency	Trade-offs Innovation	Frequency Total	TMT	MM	Co A	Co B
1	Now (short-term)	Future (long-term)	10	7	3	7	3
2	Less time and effort	More time and effort	8	4	4	5	3
3	Known territory (Routine, predictable, less risk)	Unknown territory (Unpredictable, more risk)	5	2	3	3	2
4	Group	Individual	2	1	1	2	
5	Team Motivation (well run)	Team Motivation (making a difference)	1	1		1	
5	Dictated agenda	Own agenda	1	1		1	
5	Global product standardisation	Local adaptation in innovation	1		1		1
5	Focus	Fluid	1		1	1	
5	Measurability is easy (tangible impact)	Measurability is difficult (intangible impact at first)	1	1			1

Table 37: Managers Current Exploitation - Exploration Balance (By Manager Level and Company)

Rank	Ideal Balance Exploitation	Ideal Balance Exploration	Frequency Total	TMT	MM	Co A	Co B
1	70	30	6	3	3	4	2
2	30	70	3	3		2	1
2	80	20	3	2	1		3
3	90	10	2	1	1	2	
3	50	50	2		2	1	1
5	60	40	1	1			
5	100	0	1		1		1

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Table 38: Competencies Needed for Ambidexterity

Rank	Competencies for Managerial Ambidexterity	Frequency				
		Total	TMT	MM	Co A	Co B
1	Problem solving leading to change management	15	9	6	6	9
2	Team leadership	14	10	4	8	6
3	Emotional intelligence (EQ)	8	5	3	5	3
3	Influence and persuasion - Up, down and horizontal within and external	8	6	2	5	3
5	Business savvy	6	5	1	6	
5	Balanced risk taking	6	5	1	3	3
5	Adaptive leadership	6	3	3	1	5
5	Being alert to opportunities - proactive readiness, intuition, initiative, customer and insight orientated	6	4	2	3	3
9	Mind-set flexibility - possessing a growth and continuous improvement mind-set, Flexible and open mind-set	5	3	2	3	2
9	Learning orientation - curiosity, questioning and listening	5	2	3	3	2
9	Results and success orientated	5	2	3	2	3
12	Prioritisation and focus	3	2	1	2	1
12	Structured and methodical approach	3	3		2	1