

Interpersonal factors influencing meso-level dynamic capabilities in grant-funded
research institutions

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ABSTRACT

The dynamic capabilities framework has been the subject of much research and debate. Closely interwoven with this framework are the dynamic managerial capabilities: managerial human capital, managerial social capital and managerial cognition. The aim of the study is to investigate the interpersonal factors influencing dynamic capabilities on a meso-level. Additional aspects considered are interpersonal factors influencing employee participation in sensing, seizing and transformation activities; interactions between colleagues and the effect of leadership.

The research is focused on the grant-funded research industry in South Africa. Grant funding is essential to sustainable innovation and plays a significant role in various industries such as the medical research industry. An inductive qualitative research methodology was followed and 15 interviews were conducted with participants employed in the grant-funded research industry following a semi-structured interview guide.

Various factors were identified as having a significant influence on the research questions including diversity, organisational and team culture, leadership, individual skills and interactions between colleagues. The research was concluded by making recommendations to management and suggesting avenues for future research.

KEYWORDS

Dynamic Capabilities Framework, Resource-based Theory, Dynamic Managerial Capabilities, Interpersonal Factors, Leadership.

DECLARATION

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

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Signature

LIST OF ABBREVIATIONS

RBT	Resource-Based Theory
CEO	Chief Executive Officer
DC	Dynamic Capability/ies
DCF	Dynamic Capabilities Framework
DMC	Dynamic Managerial Capabilities
SSL	Strategic Shared Leadership
TMT	Top Management Team
VRIN	Valuable, rare, inimitable and non-substitutable resources
VUCA	Volatile, uncertain, complex and ambiguous environment

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CHAPTER 1 INTRODUCTION TO THE RESEARCH PROBLEM

1.1 INTRODUCTION

Much research has been done on the subject of dynamic managerial capabilities and this research study aims to investigate the factors that have a bearing on the institutionalisation of dynamic capabilities on an organisational level. A simple search on Google Scholar returned 80 100 articles for "dynamic capabilities" and 16 300 for "dynamic managerial capabilities" for the period 2018 to 2022. These statistics are indicative of academic interest in this topic.

This qualitative research study explores the relationships and interactions of employees on a meso-level and how it influences managerial dynamic capabilities and dynamic capabilities on an organisational level. This study will focus on the interpersonal factors influencing the interactions between employees.

1.2 BACKGROUND TO THE THEORETICAL BASIS FOR THE RESEARCH

Dynamic capabilities have been the subject of much debate and research since the introduction of the Dynamic Capabilities Framework ("DCF") by David Teece et al. (1997). Various definitions for dynamic capabilities have been proposed and the framework can be summarised as emphasising "a firm's capacity to sense new opportunities in its environment and then seize those opportunities by adapting, integrating, and reconfiguring its key assets and activities"(Salvato & Vassolo, 2018, p. 1729). Since the introduction of the framework, various authors have built on the theory and proposed various definitions for dynamic capabilities. These different definitions will be explored in Chapter 2.

The three micro-foundations of dynamic capabilities are described as the ability to sense changes including threats and opportunities in the organisation's business environment, the ability to seize new opportunities and lastly, the ability to transform existing organisational resources and capabilities (Teece, 2007). It is an accepted principle that dynamic capabilities vest either on an individual level with individual members of the Top Management Team ("TMT") or on an organisational level (Teece, 2007).

Salvato and Vassolo take a different view on whether dynamic capabilities only vest at the organisational or individual level. The authors argue that interpreting dynamic capabilities strictly as routines encumbers the identification of specific sources of dynamism in an organisation and minimise the participation of individuals by curbing their creativity, independent thinking and decision-making capabilities (2018, p. 1729). An organisation requires a combination of the dependability of routines and the creativity of individuals to transform and reconfigure resources continuously (Salvato & Vassolo, 2018). In addressing this void in the research, Salvato et al. proposed a further principle to the framework by introducing a meso-level to dynamic capabilities. The meso-level encapsulates the relationships and interpersonal interactions between employees. The authors opine that the meso-level is the missing link in exploring how individual-level dynamic capabilities (micro-level) lead to the establishment of organisational-level (macro-level) dynamic capabilities (Salvato & Vassolo, 2018).

The literature on DCF further explores the concept of dynamic managerial capabilities on a micro-level. Dynamic managerial capabilities ("DMC") are defined as "capabilities that managers build, integrate and reconfigure organisational resources and competencies (2003, p. 1012; Helfat & Martin, 2015; Huy & Zott, 2019; Kor & Mesko, 2013; Li et al., 2018). DMC comprises three elements: managerial cognition, managerial social capital and managerial human capital (Adner & Helfat, 2003; Helfat & Martin, 2015; Li et al., 2018; Schilke et al., 2018). Each of these elements forms an integral part of DMC.

Managerial social capital is created by relationships and connections between individuals and is developed through investing in social networks and maintaining relationships (Sauerwald et al., 2016, p. 501; Stadler et al., 2018, p. 187). Managerial human capital is defined as the "learned skills that require some investment in education, training or learning" which includes professional work experience, skills, knowledge education and on-the-job training (Kor & Mesko, 2013; Li et al., 2018). Lastly, managerial cognition refers to the default decision-making framework of an individual comprising of their "personal beliefs and mental modes for decision-making" (Adner & Helfat, 2003; Li et al., 2018, p. 1132), emotions and knowledge structures (Helfat & Martin, 2015). The literature indicates that the social and personal relationships, technical skills and knowledge as well as the manner of thinking of an individual are critical to their dynamic capabilities. Inevitably this will influence organisational-level dynamic capabilities.

Some authors also explored the link between Strategic Shared Leadership ("SSL") and organisational dynamic capabilities. Similar to the work of Salvato and Vassolo, Pitelis and Wagner (2019) stated that research about the relationship between dynamic capabilities on an individual level and organisational level is lacking. Undoubtedly leadership is one of the interpersonal factors influencing meso-level dynamic capabilities. It should be noted that this will not be the main focus of the research study however, where the influence of leadership on dynamic capabilities is observed, it will be noted.

SSL has a significant influence on the managerial practice and the creation of organisational dynamic capabilities. When a strategic leader is concerned with the creation of new dynamic capabilities, the strategic leader must ensure that the concept of Strategic Shared Leadership is effectively instilled and applied in the organisation (Pitelis & Wagner, 2019).

This study endeavours to combine the research fields of DCF, DMC and leadership in assessing the connection between micro-level dynamic capabilities and macro-level dynamic capabilities. This study will also aim to understand the possible relationship between the leadership qualities and abilities of individuals on the meso-level of dynamic capabilities and the micro-foundations of sensing, seizing and transforming.

1.3 BUSINESS RELEVANCE

Business relevance for the research question can be found in the ever-changing business environment of organisations (be it for-profit, non-profit, income tax exempt or public benefit organisations) operating in the grant-funded industry. The grant-funded industry is highly regulated and constantly evolving with new entrants to the industry, new regulations (from funders, regulatory bodies and the like), and force majeure events like global pandemics, unexpected loss of funding agreements and so forth. This industry is a true example of a volatile, uncertain, complex and ambiguous environment ("VUCA"), and without the correct leadership, it will be very unlikely for the organisation to cultivate strong dynamic capabilities (Schoemaker et al., 2018).

Grant funding is essential to sustainable innovation (Azoulay & Li, 2020) and plays a significant role in various industries such as the medical research industry. Severin and Egger state that research in the medical and public health industry is a key component

to the well-being of the greater community (2021). It can be argued that the grant-funded research industry is of scientific and economical importance.

In 2018, Grant and Buxton (2018) emphasised both the international and intergenerational nature of research funding. A long-term view must be taken to research funding as there is an average period of between 15 to 17 years between the initial research investment (such as grant funding) and subsequent health gains (Grant & Buxton, 2018). The authors noted that for every British pound invested in medical research in the United Kingdom, the gross domestic product and health gains amounted to an equivalent of 25 pence per year effectively being a 25% annual return on investment. More interestingly, it was observed that 75% of the health gains in the United Kingdom derived from medical research conducted in countries outside the United Kingdom. This emphasises the international nature of research funding and medical research which benefits local and international populations and communities (Grant & Buxton, 2018).

The economic impact was also explored by Azoulay and Li who stated that public research funding such as the National Institute of Health (NIH) funded projects:

produce research lays the foundation upon which private sector science builds: over 40% of NIH-funded grants produce research that is cited by a private sector patent, and a single dollar in NIH funding translates into private sector spillovers with twice that amount, not counting any direct value of academic research or training (2020, p. 2).

Despite the immense economic value of the grant research industry, the "social value of a scientific finding likely exceeds its privately appropriable value" (Azoulay & Li, 2020, p. 4). The grant-funded research industry is beneficial to the greater society from a socio-economic viewpoint.

There is currently no comprehensive and easily accessible public report available on the size of the grant-funded research industry globally or locally however, the People's COP21 year report (which deals with the 2022 financial year) indicated the planned COP21 Funding level for South Africa at \$ 450 000 000 (People's COP21, 2020). Currently, the NIH annual budget for medical research amounts to \$ 41,7 billion which is a substantial contribution to the world economy (National Institutes of Health, 2021).

In December 2021, the Centre for Science, Technology and Innovation Indicators published a comprehensive report for the Department of Science and Innovation on the *National Survey of Research and Experimental Development*. The report deals with the 2019/2020 period and highlighted that the gross domestic expenditure on research and development decreased from R 36 784 000 000 in 2018/2019 to R 34 485 000 000 in 2019/2020. Despite the decrease in domestic expenditure on research and development activities, foreign funding increased from R 3 999 000 000 in 2018/2019 to R 4 662 000 000 in 2019/2020. The majority of research and development activities, 21.5% to be exact, are conducted within the medical and health sciences (CeSTII, 2021). Irrespective of the decrease in domestic funding, the research industry remains significant in its impact whether it is scientific, providing employment opportunities or in the implementation of health programmes.

Irrespective of the absence of any further consolidated statistics on the grant-funded research industry in South Africa, the industry has an extensive impact on the public health system, scientific research as well as academic outputs. Funding challenges exist in most grant-funded institutions where in most instances funding is secured following an extensive application process and always subject to the strict regulations of funders.

1.4 RESEARCH PROBLEM

To secure funding, organisations within the grant-funded research industry must endeavour to stay relevant to the funder's preferences by developing their organisational-level dynamic capabilities. The literature argues that the development of organisational-level dynamic capabilities does not happen in isolation and an organisation requires the dependability of routines and the creativity of individuals to transform and reconfigure resources continuously (Salvato & Vassolo, 2018).

Thus it is possible to develop dynamic capabilities by employing highly qualified researchers, developing the skills of existing employees, implementing reporting structures and financial management systems or extending and transforming the organisation's existing competencies, capabilities or resource base to offer something new to the funders. The research question is focused on this process and specifically the interpersonal factors influencing the meso-level dynamic capabilities.

1.5 RESEARCH PURPOSE

The overall purpose of this research study is to investigate the question of which interpersonal factors and interactions influence meso-level dynamic capabilities.

The study will further endeavour to answer subsequent questions such as:

- a) What are the inherent factors influencing employee participation in the sensing, seizing and transformation of dynamic capabilities?
- b) Which interpersonal factors influence the interactions between employees on the meso-level?
- c) What is the effect of interaction with the organisational leadership, if any?

1.6 RESEARCH SCOPE

An explorative qualitative research study was conducted to investigate and increase understanding of the relationship between meso-level dynamic capabilities and organisational-level dynamic capabilities. Interpersonal factors influencing these dynamic capabilities were investigated and the topics of managerial dynamic capabilities were addressed.

The research study focused on South African organisations operating in the grant-funded research industry. The grant-funded research industry involves various industries including education, scientific endeavours, implementation of health programmes and medical research. As per the Centre for Science, Technology and Innovation Indicators' report, the majority of research and development activities take place in the medical and health sciences sector rendering it an interesting research subject.

Data were collected by conducting semi-structured interviews with research participants who adhered to the qualifying criteria. The majority of the research participants interviewed for the study formed part of the medical research industry.

1.7 CONCLUSION

A comprehensive review of the relevant literature on dynamic capabilities, dynamic managerial capabilities and the factors influencing the creation and institutionalisation of dynamic capabilities at an organisational level are included in Chapter 2. The topics of

managerial cognition, managerial social capital and managerial human capital are also touched on and are considered the sources of dynamic managerial capabilities.

Chapter 3 sets out the research questions which are based on the literature review and Chapter 4 explains the research methodology applied in the execution of the research project. In Chapters 5 and 6, the analysis and findings of the research are discussed with a conclusion of the research study contained in Chapter 7.

CHAPTER 2 LITERATURE REVIEW

2.1 INTRODUCTION

The key constructs that form part of the research questions which will be discussed in this Chapter are dynamic capabilities, micro-foundations of sensing, seizing and transforming capabilities of an organisation, meso-level dynamic capabilities and dynamic managerial capabilities. The foundational elements of dynamic managerial capabilities (managerial cognition, human capital and social capital) will also be considered.

Various researchers (Augier & Teece, 2009; Helfat & Peteraf, 2015; Nonaka et al., 2016; Pitelis & Wagner, 2019; Schoemaker et al., 2018) have identified leadership as playing a role in dynamic capabilities. Notwithstanding this, leadership as a construct and leadership theory are not the focus of this study but it will be noted where leadership is a critical element of the development of meso-level dynamic capabilities.

2.2 DYNAMIC CAPABILITIES

The Dynamic Capabilities Framework (DCF) has been established as one of the most authoritative and prominent theoretical lenses in recent management studies (Forkmann et al., 2018; Schilke et al., 2018). The DCF builds on the principles of the Resource Based Theory (RBT) (Helfat & Peteraf, 2003; Schilke et al., 2018; Teece, 2007).

2.2.1 Resource-Based Theory

RBT encapsulates the notion that organisations "obtain sustained competitive advantages by implementing strategies that exploit their internal strengths, through responding to environmental opportunities while neutralising external threats and avoiding internal weaknesses" (Barney, 1991, p. 99). A key theoretical concept of RBT is firm resources, meaning the current resources and existing assets and operational capabilities (Schilke et al., 2018) embedded in an organisation. Firm resources enable the organisation to create and implement value-creating strategies, improving effectiveness and efficiency and resulting in competitive advantages. Firm resources can create a sustainable competitive advantage if it is a resource that is classified as a VRIN resource: a resource that is valuable (V), rare (R), inimitable (I) and non-substitutable (N) (Barney, 1991; Gibson et al., 2021; Hitt et al., 2021; Nayak et al., 2020).

Firm resources can be divided into three categories: physical capital resources, human capital resources and organisational capital resources (Barney, 1991, p. 101). Barney identified the "training, experience, judgment, intelligence, relationships and insight of individual managers and workers" in an organisation as human capital resources (1991, p. 101). Interpersonal relationships and leadership have also been identified as human capital resources on a micro-level and, relationships between organisational units or groups and company culture as organisational resources on a macro-level (Gibson et al., 2021).

Teece asserts that competitive advantages can exist at any point in time as the result of ownership of VRIN resources however, to create a sustainable competitive advantage, dynamic capabilities are required (2007, p. 1319). Some authors argue that a VRIN analysis is a necessary component for the development of competitive advantages (Bitencourt et al., 2020; Teece et al., 1997).

2.2.2. Dynamic Capability Framework

DCF focus on the changing and reconfiguration of the existing resource base and competencies of an organisation (Schilke et al., 2018). Teece et al. first introduced the DCF in their 1997 seminal article defining dynamic capabilities as "the firm's ability to integrate, build and reconfigure internal and external competencies to address rapidly changing environments. Dynamic capabilities thus reflect an organisation's ability to achieve new and innovative forms of competitive advantage given path dependencies and market positions" (Schilke et al., 2018, p. 396; Teece et al., 1997, p. 516).

Since 1997, various authors have conceptualised different definitions of the framework. Of interest are the definitions conceptualised by Eisenhardt and Martin, Zollo and Winter and a further extended definition introduced by Teece. In 2000, Eisenhardt and Martin defined dynamic capabilities as the:

firm's processes that use resources - specifically the processes to integrate, reconfigure, gain and release resources - to match and even create market change. Dynamic capabilities thus are the organisational and strategic routines by which firms achieve new resource configurations as markets emerge, collide, split, evolve, and die (Eisenhardt & Martin, 2000, p. 1107; Schilke et al., 2018, p. 396).

Two years later in 2002, Zollo and Winter proffered another definition whereby dynamic capabilities were defined as "a learned and stable pattern of collective activity through which the organisation systematically generates and modifies its operating routines in pursuit of improved effectiveness" (Schilke et al., 2018, p. 396; Zollo & Winter, 2002, p. 340)

In 2007, Teece introduced a further definition extending his original framework by considering specific elements through which dynamic capabilities operate (Helfat & Peteraf, 2015). The extended definition considered dynamic capabilities as capabilities that "can be harnessed to continuously create, extend, upgrade, protect, and keep relevant the enterprise's unique asset base" (Schilke et al., 2018, p. 396; Teece, 2007, p. 1319).

There is a common theme in the above definitions: dynamic capabilities are seen as a repetitive process of intentional and focused action which leads to the renewal of existing resources or the creation of new competencies. However, the role of individuals in an organisation is not evident from the definitions. This is also one of the critiques raised by Salvato and Vassolo and the authors indicate that the current format of dynamic capability theory does not explain the integration of individual employee's contributions in more formal organisational-level capabilities (Salvato & Vassolo, 2018).

2.2.3 Understanding operational capabilities and dynamic capabilities

Organisational capability is "the capacity by which an organisation performs a particular activity in a reliable and at least minimally satisfactory manner" (Helfat & Winter, 2011, p. 1244; Li et al., 2018, p. 1132). Organisational capabilities can be divided into two distinct groups: operational capabilities (also known as ordinary capabilities or zero-order capabilities) and dynamic capabilities (Helfat & Winter, 2011; Schilke et al., 2018).

Operational capabilities are focused on sustaining the status quo of an organisation and empowering organisations to operate and survive in the present context by (Schilke et al., 2018; Warner & Wager, 2019; Winter, 2003) continually performing activities, in the same manner, using the same resources and techniques in delivering services and goods to its existing customer base (Helfat & Winter, 2011, p. 1244).

In contrast to operational capabilities, dynamic capabilities are focused on strategic change and empowering an organisation to change how it operates in the present

business context (Helfat & Winter, 2011; Schilke et al., 2018). Dynamic capabilities are the competency of an organisation to evolve, create and transform its capabilities in a volatile environment (Salvato & Vassolo, 2018; Teece, 2007; Teece et al., 1997; Uhl-Bien & Arena, 2018). This includes an organisation's capacity to "extend, create, or modify its resource base, enabling the firm to achieve evolutionary fitness through adaptation to, and/or shaping of the external environment" (Kor & Mesko, 2013, p. 33) and creation of operational capabilities (Winter, 2003).

Dynamic capabilities are immersed within an organisation and developed over a continuous period of time (Schilke et al., 2018). Organisational dynamic capabilities are developed from the organisation's unique, distinctive and historically shaped abilities and routines (Nayak et al., 2020; Teece et al., 1997). These capabilities have the potential to alter an organisation's strategy, existing resource base, and internal and external environment through the systematic and repeated application of activities focused on strategic change (Schilke et al., 2018).

Operational (ordinary) capabilities relate to an organisation's ability to perform specific tasks for its customer bases such as the provision of services or products. Operational capabilities enable an organisation to generate and capture value for its customer base through existing practices ("routines that reconfigure the organisational resource base" (Ferreira et al., 2020, p. 3)) which may include activities such as marketing, manufacturing, strong partnerships and operational leadership (Schoemaker et al., 2018). Attention is drawn to the work of Ferreira et al. (2020, p. 3) wherein both the terms 'ordinary capabilities' and 'first-order dynamic capabilities' are used. The authors state that 'ordinary capabilities' are predominantly based on routines (2020, p. 12) while 'first order capabilities' are defined as "routines that reconfigure the organisational resource base" (2020, p. 3). On the other hand, second-order dynamic capabilities are described as routines that reconfigure first-order dynamic capabilities (2020, p. 3).

In contrast to operational capabilities, dynamic capabilities relate to an organisation's ability to transform and create novel first-order competencies through a learning process: sensing, seizing and transforming (Bendig et al., 2018; Danneels, 2008, 2016). Dynamic capabilities are distinctly different from organisational capabilities, grounded in innovation (Ambrosini & Bowman, 2009; Warner & Wager, 2019), and enable organisations to differentiate how the organisation generates and captures values. This is done by implementing "foresight, agility, business model innovation and forward-looking strategy" (Eisenhardt et al., 2010; Pitelis & Wagner, 2019, p. 234; Teece, 2007).

Schoemaker et al. summarised this principle by stating that dynamic capabilities "enable firms to identify profitable configurations of competencies and assets, assemble and orchestrate them, and then exploit them with an innovative and agile organisation" (2018, p. 17). This underscores the notion that capabilities are grounded in routine organisational processes involving coordination, learning (knowledge creation) and transformation, or reconfiguration (Harreld et al., 2007).

The history of an organisation impacts its current and future performance (Teece, 2007) and dynamic capabilities are the bridge that connects the past with the future. In the absence thereof, an organisation will be disrupted by any change in the environment (Schoemaker et al., 2018). A key insight of the micro-foundations of dynamic capabilities is that an organisation may prevail over past constraints by "unshackling the enterprise from dysfunctional processes and structures designed for an earlier period" (Suddaby et al., 2020, p. 549; Teece, 2007, p. 1341).

2.2.4 Micro-foundations of Dynamic Capabilities

Dynamic capabilities can be divided into three micro-foundations: a) the capability to sense and shape different opportunities and probable and existing threats; b) the capability to seize opportunities through the allocation of resources to support developing opportunities and making investments; and c) the capability to maintain competitiveness through the transformation and reconfigurations of resources, assets, capabilities and renewal of business activities (Helfat & Martin, 2015; Teece, 2007; Teece et al., 2016). Companies must generate dynamic capabilities to be able to manage the company resources more effectively and flexibly (Hitt et al., 2021; Teece, 2007).

Various authors have identified the micro-foundations of dynamic capabilities to include elements such as cross-functional research and design teams, product development and quality control routines, and knowledge and/or technology transfer routines just to name a few (Eisenhardt et al., 2010; Teece, 2007). Harreld et al. believe that it is a primary and continuous responsibility of the executive management of an organisation to assist the organisation to develop dynamic capabilities (2007).

2.2.5 Sensing

According to Teece, sensing new business opportunities (and shaping the environment) is a "scanning, creation, learning and interpretive activity" (2007, p. 1322). Schoemaker et al. describe sensing as detecting "weak signals in the broader marketplace, including government regulations, technological developments, economic trends and socio-political currents" (2018, p. 20). It is clear that sensing is a repetitive process with two factors influencing the identification of new business opportunities by an organisation. Firstly, different levels of access to existing information and secondly, new knowledge combined with new information can create new opportunities (Teece, 2007).

The micro-foundation of sensing new opportunities and threats can vest either at an individual level or in organisational processes. For an individual, whether it is a leader, entrepreneur or manager, to create or discover new business opportunities, the individual will require access to information and the ability to identify and influence any opportunities and developments (Teece, 2007). The individual's ability to identify new opportunities relies on their capabilities (creativity, understanding of the decision-making process as well as practical wisdom) and existing knowledge. Alternatively, the knowledge and learning capabilities of the individual's employer (Nonaka & Toyama, 2007; Teece, 2007). Some authors believe that the TMT cannot effectively sense new business opportunities in isolation (Nonaka et al., 2016).

An organisation's existing resource base and competencies impact the search for new opportunities for growth and diversification (Kor & Mesko, 2013). A critical element of dynamic capabilities is to sense new business opportunities before they come to fruition. This can be done through environmental scanning and identifying opportunities and threats (Helfat & Peteraf, 2015). The action of sensing includes an element of "alertness and discovery process" which relates to "perception and attention" as managerial cognitive capabilities (Helfat & Peteraf, 2015, p. 838).

2.2.6 Seizing

The micro-foundations of seizing opportunities include the following: a) selecting product architects and business models, b) selecting enterprise boundaries, c) managing complements and platforms and d) avoiding biased considerations (Teece, 2007). Upon identification of a new business opportunity, the organisation must seize or address the

new opportunity by implementing new processes, products or services which may require complementary investments (Teece, 2007).

Ultimately the decision of how and when to exhaust a new business opportunity vests with the executives of a firm. Teece notes that the predisposition to decision errors is common in the managerial decision-making process. To combat the decision error or bias involved in the decision-making process, the organisation must implement processes or techniques to overcome the biases. This requires a "cognitively sophisticated and disciplined approach to decision-making" (Teece, 2007). Another example of a micro-foundation of an organisation's seizing capability is the creation of competitive and effective business models (Schoemaker et al., 2018).

Problem-solving and reasoning are two managerial cognitive capabilities that relate directly to the micro-foundation of seizing and even more so when it relates to strategic investment and developing new business models (Helfat & Peteraf, 2015). It can be argued that this relates directly to the decision-making process of executives and any individual on the senior management level.

2.2.7 Transformation

The micro-foundations of transforming or reconfiguration organisational assets and capabilities to exhaust opportunities include the following: a) achieving decentralisation and near decomposability, b) managing cospecialisation, and c) learning, knowledge management and corporate governance (Teece, 2007). Teece asserts that organisations will not be able to respond to customers or new technologies without a high level of decentralisation (2007). The key purpose of transforming organisational assets is to sustain the organisation but also to initiate and maintain growth. Increased organisational growth and profitability are initiated by improving, combining and transforming organisational resources and other assets (Helfat & Peteraf, 2015, p. 842).

Integral to the transforming and reconfiguring process is a decentralised decision-making process. Decentralised decision-making enables different decision-makers to make independent decisions based on the information available to them. This is done independently of the need to report to a single decision-maker which improves the dexterity and responsiveness of the organisation (Teece, 2007). Restructuring an organisation into a multidivisional dimension enables the delegation of decision-making rights achieving "greater accountability of managerial decisions so that the recognition

of opportunities and threats could proceed more thoroughly and expeditiously" (Teece, 2007, p. 1336). Integral to this is the ability to generate learning and knowledge management capabilities within the organisation (Teece, 2007).

According to Teece, the organisational and management processes of coordination and integration, learning, and reconfigurations, are key characteristics of dynamic capabilities and form a sub-set of processes to that of sensing, seizing and the management of threats (Teece, 2007). Asset reconfiguration is dependent on the managerial cognitive capabilities of language and communication. It is important to note that social cognitive capabilities also play a role in the reconfiguration process (Helfat & Peteraf, 2015).

Helfat and Peteraf defined social cognitive capabilities to include the:

capacity to understand the point of view of others, and therefore provides the potential to influence the behaviour of others as well. The social cognitive capabilities of top executives may enable them to influence organisational members to promote asset reconfiguration in at least two ways. First, these capabilities may help managers to foster cooperation. Cooperation is often associated with trust among organisational members; trust also may serve to lower the cost of cooperation. The capacity of top executives to trust and foster trust is likely to depend in part on their social cognitive capabilities since trust requires mutual understanding. Top executives may also utilise social cognitive capabilities to overcome organisational resistance to change (2015, p. 844).

2.3 MULTI-LEVEL APPROACH TO DYNAMIC CAPABILITIES

Salvato and Vassolo take a different approach to DCF. The authors proposed a multi-level approach and examined dynamic capabilities on a micro (individual) level, meso-level and macro (organisational) level. On a micro (individual) level, it is suggested that the "micro-foundations of the individual actions" on which dynamic capabilities are based are a combination of cognition, habit and emotion of individuals (Salvato & Vassolo, 2018, p. 1730). Ultimately, the decision-making abilities rest with the individuals in the top management team (Salvato & Vassolo, 2018).

In contrast, at a macro (organisational) level, dynamic capabilities are viewed as "higher-level organisational routines or decision-making rules and algorithms" (Salvato & Vassolo, 2018, p. 1729) and it was considered how dynamic capabilities influence the

organisation's sustainable competitive advantage (Salvato & Vassolo, 2018). Inherent to a company's dynamic capabilities is the ability of the executive team to sense new developments and threats in the industry, develop a strategic response and lead the implementation of the response within the company. The decision, entrepreneurial nature and skills of the executive team will determine the nature of the company's dynamic capabilities (Teece et al., 2020; Teece et al., 2016). This aligns with the view that the dynamic capabilities of an organisation predominately vests in the organisation's top management team however it is influenced by the historical processes, procedures and structures put in place to manage the business (Teece, 2007).

According to Schoemaker et al., the ability of the leadership team to sense change, seize opportunities and transform the organisation is pivotal to the transformation of the organisation. The author states that these are "collective skills that organisations need when pursuing disruptive innovation, radically new business models, and strategic leadership" (Schoemaker et al., 2018, p. 16). Interpreting dynamic capabilities solely from an individual and organisational level does not provide clarity on how the contributions of various employees are integrated into an organisational-level dynamic capability enabling continuous asset renewal (Salvato & Vassolo, 2018).

A critique raised by Salvato and Vassolo is that interpreting dynamic capabilities strictly as routines encumbers the identification of specific sources of dynamism in an organisation and minimise the participation of individuals by curbing their creativity, independent thinking and decision-making capabilities (2018, p. 1729). An organisation requires a combination of the dependability of routines and the creativity of individuals to transform and reconfigure resources continuously (Salvato & Vassolo, 2018).

Interpreting dynamic capabilities solely from an individual or organisational level does not provide clarity on how the contributions of various employees are integrated into an organisational-level dynamic capability enabling continuous asset renewal (Salvato & Vassolo, 2018). Salvato and Vassolo noted:

in order to be sources of competitive advantage, DCs need to be synchronised across three distinct levels – from the individual to the interpersonal, and from the interpersonal to the organisational. The degree of synchronisation, in turn, will determine the degree of resource dynamisation (2018, p. 1745).

At the meso-level of dynamic capabilities, the relationship between employees is considered a necessary factor to solidify the organisation-level dynamic capabilities and indicated that productive dialogue is required for the integration of employees' change initiatives in organisational-level dynamic capabilities (Salvato & Vassolo, 2018). It is interesting to note that sociology literature emphasises a meso-level analysis as a focus on the interactions within groups (Fine, 2012; Ray, 2019). A group is defined as "an aggregation of persons that is characterised by shared place, common identity, collective culture, and social relations, although groups vary in the extent to which they apply. These four features constitute the basis of the group form" (Fine, 2012, p. 160).

2.4 DYNAMIC MANAGERIAL CAPABILITIES

2.4.1 Introduction to Dynamic Managerial Capabilities

Adner and Helfat developed the "dynamic managerial capabilities" concept almost two decades ago and worded it as "capabilities that managers build, integrate and reconfigure organisational resources and competencies (2003, p. 1012; Helfat & Martin, 2015; Huy & Zott, 2019; Kor & Mesko, 2013; Li et al., 2018). Dynamic managerial capabilities (DMC) directly relate to the DCF developed by Teece et al. and are considered a sub-field of dynamic capabilities (Helfat & Martin, 2015; Teece, 2018). DMCs are further closely linked with the micro-foundations of sensing, seizing and reconfiguration of organisational assets (Helfat & Martin, 2015).

DMC endeavours to explain the connection between the decisions of the management team and the performance and strategic implementation of an organisation in a changing environment (Helfat & Martin, 2015). Kor and Maseko considered dynamic managerial capabilities as the structure to create conformity between an organisation's capabilities and the changing business environment (Kor & Mesko, 2013). The connection between these two elements is created by managers who re-evaluate the growth and opportunity limits of the organisation and reconfigure the organisation's positioning accordingly (Kor & Mesko, 2013). This process is grounded in the microfoundations of dynamic capabilities.

Managers, as agents of change: sense new opportunities by using "environmental scanning to identify new trends and opportunities", seize opportunities by integrating "new ideas and knowledge with the firm's existing capabilities, which is instrumental for success in product sequencing, transform an organisations resource base by "identifying

new technologies, product applications, and competency combinations" (Correa et al., 2019; Kor & Mesko, 2013, pp. 233-234). In their research study, Adner and Helfat hypothesised that diversified managerial decisions influence business performance. They argued that the dynamic capability skill set of individuals differ which will result in differentiating managerial decisions which in turn will affect the resources and capabilities of an organisation (Adner & Helfat, 2003). Some authors have noted that the capabilities of the individuals are key as the organisational success is dependent thereon (Li et al., 2018).

Managerial resources as the building blocks of dynamic managerial capabilities are managerial social capital, managerial human capital and managerial cognition (Adner & Helfat, 2003; Helfat & Martin, 2015; Li et al., 2018; Schilke et al., 2018). These building blocks influence and moulds the resource and capability base of an organisation through the active implementation of dynamic managerial capabilities (Adner & Helfat, 2003). It further provides the basis for "patterned aspects of managerial intentionality, deliberation, decision making, and action" and sustains the existing operations of the organisation (Helfat & Martin, 2015, p. 1285). Certain elements of dynamic managerial capabilities have been identified by Barney (1991; Gibson et al., 2021) as part of organisational resources as defined by RBT. This includes managerial human and social capital (refer to paragraph 2.2.1).

2.4.2 Foundations of Dynamic Managerial Capabilities

2.4.2.1 Managerial Social Capital

Social capital is created by relationships and connections between individuals and is said to be developed through investing in and maintaining social relationships and networks (Sauerwald et al., 2016, p. 501; Stadler et al., 2018, p. 187). Social capital is grounded in the notion that social relationships and connections, such as friendships, club memberships, colleagues and mentors, possess some goodwill and information that may be transferred to other environments such as a work environment (Adner & Helfat, 2003; Helfat & Martin, 2015; Kor & Mesko, 2013). Goodwill is the "sympathy, trust and forgiveness offered us by friends and acquaintances" (Adler & Kwon, 2002, p. 18). For this reason, social capital and goodwill can be leveraged to benefit individual managerial capabilities and organisational-level dynamic capabilities.

Helfat and Martin contend that managerial social capital as a building block of dynamic managerial capabilities comprises both formal and informal social connections that an individual may have (2015, p. 1286; Li et al., 2018). A distinction can be made between external social capital created by social relationships externally to a work environment and, internal social capital created by social relationships with colleagues (Adler & Kwon, 2002; Adner & Helfat, 2003; Li et al., 2018).

Social capital creates a network of information sources. In practice, managers rely on different internal and external relationships to obtain information, knowledge and interpretive lenses which inform their beliefs, their expectations of an organisation and their decisions (Adner & Helfat, 2003; Kor & Mesko, 2013). This may also assist with the sensing of new opportunities and threats as well as seizing actions as managers may have access to additional resources such as financing, and individuals with specialised skills (Helfat & Martin, 2015). Diversity in these resource bases will ultimately lead to richer and more differentiated decisions by managers (Adner & Helfat, 2003).

Social capital is critical to an organisation's dynamic capabilities. An organisation will be restricted in transforming and reconfiguring its asset base without the social capital of its employees (Helfat & Peteraf, 2015).

2.4.2.2 Managerial Human Capital

Human capital is defined as the "learned skills that require some investment in education, training or learning" which includes professional work experience, skills, knowledge education and on-the-job training (Kor & Mesko, 2013; Li et al., 2018). Prior work experience refines the knowledge base and skill set of managers while effective management skills are developed through practice and learning by doing (Adner & Helfat, 2003). Some authors consider human capital to include "psychological attributes of cognitive ability" such as personality, interests and value (Helfat & Martin, 2015, p. 1286).

Managers may differ in the make-up of their skill set as well as the level of ability of each capability. The skill sets of managers can be divided between skills that can be transferred between organisations, known as generic skills and skills that cannot easily be transferred between organisations, known as specialised skills (Adner & Helfat, 2003; Helfat & Martin, 2015; Kor & Mesko, 2013). It must be noted that generic human capital can create value for an organisation irrespective of its lack of specificity (Helfat & Martin,

2015). Specialised managerial skills are skills which are specific to an industry or organisation. In contrast, generic managerial skills, skills which positively affect the productivity of employees, are transferable between organisations (Adner & Helfat, 2003; Kor & Mesko, 2013; Li et al., 2018).

Generic skills are pivotal for managing the organisation, investigating business opportunities and maintaining the dynamic capabilities of an organisation. These skills include a wide range of skills including networking, collaborating, organising and entrepreneurial skills such as sensing new opportunities and explicating new information (Adner & Helfat, 2003; Li et al., 2018; D. Teece, 2007). Specialised skills are industry-specific skills and cannot be transferred between organisations (Kor & Mesko, 2013).

Differences in the human capital of employees on a management level are influenced by the specific career path and development of the individual. Different work experiences and different employment opportunities result in differentiated and specialised managerial capabilities and knowledge which creates unique expertise informing varying decisions (Adner & Helfat, 2003; Kor & Mesko, 2013). Managerial human capital has a direct influence on developing an individual's organisation-specific managerial dominant logic:

knowledge of specialised resource strategies and their corresponding managerial skill set then shape the key assumptions and heuristics that managers use to perceive, interpret, and evaluate a particular business environment. This human capital-based managerial processing of internal and external stimuli is then converted into strategic priorities and choices about paths and patterns of firm growth and diversification, competitive positioning, and capability acquisition and development initiatives (Kor & Mesko, 2013, p. 235).

These differences in human capital influence how an individual will sense and seize opportunities and threats; transform and reconfigure organisational assets and resources. Managers with differentiated human capital will differ in their absorptive capacity for information and corresponding opportunities (Helfat & Martin, 2015).

2.4.2.3 Managerial Cognition

Managerial cognition refers to the default decision-making framework of an individual comprising of their "personal beliefs and mental modes for decision-making" (Adner &

Helfat, 2003; Li et al., 2018, p. 1132), emotions and knowledge structures (Helfat & Martin, 2015). Some authors argue that the cognitive base for the decision-making framework is a combination of comprehension of current events, knowledge and predictions regarding the future as well as awareness of alternatives and the consequences thereof (Adner & Helfat, 2003; Li et al., 2018).

However, the social interactions that individuals have on a personal and professional basis influence the managerial cognition of the individual (Kor & Mesko, 2013, p. 234). This is supported by Helfat and Martin's statement that managers with historic experience in evolving markets and organisations, develop knowledge structures which can be applied in different settings (2015, p. 1286). Helfat and Peteraf build on this notion and define managerial cognitive capabilities as the "capacity of an individual manager to perform one or more of the mental activities that comprise cognition" (2015, p. 835). Mental activities *inter alia* include attention and perception, reasoning and problem-solving, emotional awareness and regulation, and language and communication (Helfat & Martin, 2015).

Managerial cognition further consists of managerial belief structures and mental models as reflected by the dominant logic within a company (Adner & Helfat, 2003; Kor & Mesko, 2013; Prahalad & Bettis, 1986). Prahalad and Bettis, who first introduced the concept of dominant logic in 1986, defined dominant logic as "a mindset or a worldview or conceptualisation of the business and the administrative tools to accomplish goals and make decisions in that business" (Engelmann et al., 2020, p. 323; Prahalad & Bettis, 1986, p. 491). Dominant logic can be viewed as a knowledge structure as well as management processes (Prahalad & Bettis, 1986). It can be argued that both of those elements influence the managerial cognition of an individual.

Kor and Mesko offer the argument that dominant logic is the lacking element connecting management's capabilities and the transformation of an organisation's resource base and other competencies (Kor & Mesko, 2013; Ma et al., 2022). The dominant logic principle has been drawn down to the managerial level. Managerial dominant logic is "the way in which managers conceptualise the business and make critical resource allocation decisions - be it in technologies, product development, distribution, advertising, or in human resource management" (Kor & Mesko, 2013, p. 235; Prahalad & Bettis, 1986, p. 490). Dominant logic represents the management's worldview, their view as to the position of the organisation in the industry as well as actions to be taken in the business including strategic measures to be implemented (Kor & Mesko, 2013).

The managerial cognitive capabilities that are critical to seizing new opportunities are perception and attention (Helfat & Peteraf, 2015). Perception is "the construction of useful and meaningful information about a particular environment" including pattern identification and "knowledge gained from prior experience shapes the perception of new experiences which suggest path dependencies" (Helfat & Peteraf, 2015, p. 838). On the other hand, attention determines "which stimuli are recognised and identified, through the act of focusing on particular information" (Helfat & Peteraf, 2015, p. 839). Attention is important to effective perception.

Managerial cognition will influence a manager's understanding of market changes and their responses to these changes (Li et al., 2018). Individuals who lack managerial cognition will fail to recognise and interpret market changes which will be to the detriment of their organisation's transformation endeavours (Helfat & Martin, 2015; Li et al., 2018). This is supported by the view that an individual's managerial dominant logic is a result of managerial cognition: the exercise of managerial mental models, in conjunction with managerial human and social capital, in the context of a specific organisation (Kor & Mesko, 2013).

The dominant logic of an organisation is, at the beginning of the organisation, a reflection of the dominant logic of the initial management team. As the dominant logic of the management team evolves, the organisation's dominant logic will also evolve as "a system of expectations, beliefs, and priorities that are embedded in the firm's routines, procedures, and resource commitments" (Kor & Mesko, 2013, p. 235-236). This offers the interpretation that the establishment of an organisation's dominant logic is a bottom-up process from a management level to an organisational level.

The role of employees involved at the senior management level is pivotal to the formulation of an organisation's dominant logic, especially as the "knowledge and reasoning that supports the assumptions and priorities embedded in a dominant logic are recorded in organisational memory through formal routines and informally shared understandings" (Kor & Mesko, 2013, p. 236). Different benefits are forthcoming from managers with diverse managerial cognition (Helfat & Peteraf, 2015). The importance of differentiated managerial cognition can be gleaned from the following:

Different managers with different backgrounds in terms of knowledge, experience and skills will respond differently in acquiring information, recognising

opportunities, and reconfiguring resources. A diversified team of managers with complementary knowledge, experience, and skills are more likely to succeed in recognising and seizing opportunities and reconfiguring organisational resources, capabilities and structure, facilitating digital transformation (Li et al., 2018, p. 1132).

2.4.2.4 The interconnectedness of managerial cognition, managerial human capital and managerial social capital

Managerial human capital, managerial social capital and human cognition are interrelated concepts that interact with each other and have concurrent influence (Adner & Helfat, 2003; Helfat & Martin, 2015; Kor & Mesko, 2013). Internal and external social connections are information resources which information may influence the managerial cognition of an individual and subsequent decisions. The information obtained through these social connections may broaden the knowledge basis of an individual which will lead to an increased depth of managerial human capital (Adner & Helfat, 2003; Helfat & Martin, 2015). In turn, richer managerial human capital and managerial cognition will influence the individual's social capital by example "making the member more valuable and sought after as a board member of other companies" (Adner & Helfat, 2003, p. 1022).

The interconnectedness of managerial cognition, managerial human and social capital is reflected in Kor and Mesko's (2013) view, as mentioned above, that managerial dominant logic is a result of the application of all three building blocks of dynamic managerial capabilities. Much research has been done on the influence of diversity on organisational teams and processes. Li et al. (2018) enunciated the role of diversity on managerial human capital and the subsequent success of organisational endeavours. The interpersonal factors influencing employees of the meso-level, being senior management level, will influence the social relationships between colleagues, the broadening of managerial human capital through the sharing of ideas and information and, managerial cognition through the moulding of an individual's preconceived notions, perceptions and biases.

High-ranking dynamic managerial capabilities will result in the successful implementation of strategic changes and enhance organisational performance (Helfat & Martin, 2015; Li et al., 2018). Management teams possessing competent dynamic managerial capabilities are more subjective to sensing market changes and seizing market opportunities leading to strategic changes (Li et al., 2018). Diversity in the managerial

capabilities within a management team will lead to diversity within the organisation's performance (Helfat & Martin, 2015). In reflecting on the literary principles it can be argued that creating a productive and psychologically safe environment conducive to the development of social and human capital, as well as managerial cognition, is of utmost importance to the well-being and success of an organisation.

2.4.3 Conclusion of Dynamic Managerial Capabilities

Various authors highlight the importance of dynamic managerial capabilities and the significance of senior management's capacity to ensure "learning, integration, and, when required, reconfiguration and transformation - all aimed at sensing and seizing opportunities as markets evolve" (Helfat & Martin, 2015, p. 1284; O'Reilly & Tushman, 2008, p. 189; Uhl-Bien & Arena, 2018).

The dynamic managerial capabilities concept applies to individuals as well as a team of managers. The complementarities of the differentiated human capital of individual team members may positively influence the organisation's performance (Helfat & Martin, 2015). Individuals differ in their dynamic managerial capabilities: some may have superior capabilities while others may lack the capabilities completely (Helfat & Martin, 2015). The structure and compatibility of different team members are of utmost importance. By implication, organisations with managers who have high-ranking capabilities will adapt more successfully in changing environments than organisations with senior managers who lack these capabilities (Helfat & Martin, 2015).

The development and coordination of the dynamic managerial capabilities of the senior management team will support, strengthen and broaden the dynamic managerial capabilities of the chief executive officer (CEO). However, this is dependent on the chief executive officer's efforts to assemble and cultivate an effective team (Kor & Mesko, 2013; Ma et al., 2022). Team environments that encourage the "sharing of different ideas, insights, and viewpoints will open and maintain a channel of communication that feeds critical information" and will augment the dynamic managerial capabilities of the chief executive officer (Kor & Mesko, 2013, pp. 239-240).

2.5 FACTORS INFLUENCING EMPLOYEE ENGAGEMENT

2.5.1 Influence of management

The role of managers has been summarised as follows:

.managers need to be able to scan their environments, identify relevant opportunities and threats, to design responses that will satisfy customers in ways that competitors can't easily imitate, and, finally, to ensure that these plans are implemented, even as the firm competes across a variety of geographies and markets and in mature businesses as well as emerging ones (Harreld et al., 2007, pp. 22-23).

A distinguishable attribute that differentiates DCF from other strategic frameworks, is the ability to transform and reinvent existing capabilities. This attribute requires senior management to sense developments in the organisation's environment and to seize any opportunities or threats by transforming existing resources (Harreld et al., 2007). Developments in the organisation's environment may include technology developments, governance aspects and regulations, customer base and competitors (Harreld et al., 2007).

2.5.2 The absorptive capacity of management

The absorptive capacity of management has been defined as the:

collective capacity of managers to absorb new knowledge and combine their existing knowledge repositories with new insights, assumptions and knowledge systems. Such combinations yield fresh managerial perceptions and realisations about the future possibility set for the firm and the need for adjustments in the firm's competency portfolio (Kor & Mesko, 2013, p. 237).

As part of management's absorptive capacity, diversity in managers' alertness, responsiveness, training and learning moulds an organisation's response to new information received from internal and external sources (Kor & Mesko, 2013). The absorptive capacity of management can be developed by reforming the dynamic capabilities of the executive team and ongoing learning by the executive team members

(Kor & Mesko, 2013). This integrates with the dynamic managerial framework and the concept of managerial cognition and human capital.

A characteristic of effective and dynamic management teams is the appreciation of the different generic and specialised skill sets present within the team and the willingness of the individuals to engage and learn from each other (Kor & Mesko, 2013). Further characteristics include an advanced sense of common knowledge, language and shared meaning. This will enable the organisation to integrate specialised knowledge bases within the management team (Kor & Mesko, 2013). In the absence of these characteristics, management's absorptive capacity is reduced to the absorptive capacity of individuals applied in isolation (Kor & Mesko, 2013). The significance of the absorptive capacity of management can be gleaned from the following:

A well-nourished and conditioned executive team absorptive capacity is a precursor to the ability of the team to learn continuously and be open to new possibilities. Without social learning and integration mechanisms that enable managers to combine contrasting knowledge streams and capabilities, the executive team's absorptive capacity will be lacking in knowledge utilisation capabilities (such as knowledge transformation, acquisition, assimilation and exploitation) (Kor & Mesko, 2013).

It is imperative for an organisation to cultivate a strong team absorptive capacity as it will result in higher-ranking decisions and outcomes while developing individual absorptive capacities (Kor & Mesko, 2013). The role of the CEO is pivotal in developing the dynamic managerial capabilities of individuals as well as ensuring the harmonious and mutually beneficial implementation of dynamic managerial capabilities. Li et al. describe the role of the CEO as follows:

CEO's ability to mentor, teach, counsel, and nurture senior managers both helps executives flourish as individual managers, and promotes a fruitful and synergistic co-deployment of managerial capabilities. This collaborative approach involves a positive team environment that nurtures synergy, interactive learning, and debating, along with a shared sense of respect and support for team members. This environment fosters collective social capital among managers, which then feeds and grows the team's intellectual capital (2018, p. 239).

2.5.3 The influence of diversity on employee actions

The correlation between employee diversity and the performance of an organisation has been the subject of many research studies. Barney et al. (2018) investigated the relationship between senior management involvement and the creation of novel entrepreneurial activities in a bottom-up initiative management style with a diverse workforce. When employees and senior management teams are diverse in their age, gender, level and type of education, work experience and length of employment at a specific organisation, there will be differentiating perspectives and perceptions on technical and commercial problems and lastly, distinctive interpreted lenses (Barney et al., 2018; Li et al., 2018). Previous research also shows that a higher level of employee diversity within a workgroup is beneficial to the creative outcomes formulated within the group (Barney et al., 2018; Horwitz & Horwitz, 2007).

2.6 STRATEGIC LEADERSHIP

The field of Strategic Leadership has been the subject of much debate and there is no clear consensus on the exact definition of the concept with differentiating views and conceptualisations being published (Samimi et al., 2020). Samimi et al. define strategic leadership as "the functions performed by individuals at the top levels of an organisation (CEOs, TMT members, Directors, General Managers) that are intended to have strategic consequences for the firm" (Samimi et al., 2020, p. 3).

For an organisation to operate effectively and stay profitable in a VUCA environment, the leadership team requires special leadership skills to ensure the success of the organisation (Schoemaker et al., 2018). In these environments, an organisation also requires diverse managerial skills: operational, entrepreneurial and leadership. These management skills can be divided across several individuals or all three skills may vest in one individual.

Strategic leadership and entrepreneurial management exist, in the case of one individual or a small leadership team possessing both entrepreneurial and leadership skills (Schoemaker et al., 2018). Various characteristics have been identified for strategic leaders to navigate a VUCA environment: anticipation, challenge and interpretation, decision-making abilities, and the ability to align different perspectives and learning. These characteristics align with the sensing, seizing and transforming capabilities of an organisation (Schoemaker et al., 2018).

2.7 STRATEGIC SHARED LEADERSHIP

Shared leadership transpires when leadership activities are shared between various individuals across different divisions within an organisation (Pitelis & Wagner, 2019, p. 233). The authors further defined strategic shared leadership:

as leadership of the firm, involving the purposeful sharing of strategic decisions, and the process of making and taking these, between the dominant coalition that is initiated and implemented by a focal strategic leader or a small group of strategic leaders such as the CEO and Chair of the Board (Pitelis & Wagner, 2019, p. 234).

The strategic leadership team should predominantly focus on the strategic decisions of the organisation and not the daily operational aspects. These decisions revolve around the mission and activities of the organisation and the organisational structure and should be shared between the strategic and managerial teams (Pitelis & Wagner, 2019). Pitelis and Wagner argue that the strategic shared leadership concept develops dynamic capabilities at an organisational level through the transfer of individual-level dynamic capabilities (vesting in the individual leadership team members) to the organisation. Through this process, new organisation-level dynamic capabilities are created and absorbed within the organisational structure (2019a).

Strategic shared leadership enables the co-creation of new knowledge and strategic decisions which are subject to monitoring processes by applying the collective knowledge of the strategic leadership team (Pitelis & Wagner, 2019). The sharing process is usually initiated by a central leadership figure in the organisation, the CEO or another key individual such as the Chair of the Board of Directors. To obtain the maximum benefits from the sharing process, the process must be supported by the personal commitment of the strategic leader and subject to quantitative and qualitative monitoring measures (Pitelis & Wagner, 2019).

Through the intentional sharing of the strategic decision-making process (making strategic decisions after due consideration), the strategic shared leadership construct firstly ensure the transfer and the absorption of individual-level dynamic capabilities into the organisation, and secondly the creation of new organisation-level dynamic

capabilities (Pitelis & Wagner, 2019). Through the sharing of strategic decisions a form of distributed leadership is created as noted by Nonaka et al.:

Nonetheless, it is noteworthy that the foundation of the creative aspect of dynamic capabilities lies in distributed leadership. When the organisation is managed in a hierarchical manner where top management has the most of the decision-making power, top management has to exercise a difficult judgment in delegating some of its power to the lower tiers of the hierarchy to empower middle management. This points to the earlier claim that the role of top management is not to dictate the sensing, seizing and transforming phase, but to facilitate the organisational culture and value that empower the middle managers – the wise leadership of top management. This allows sensing, seizing and transforming by the greatest possible number of members of the organisation" (2016, p. 179).

The centre of the strategic management process vests in the top management team (Samba et al., 2018), the diversity of which can be determined by the degree the members differ from each other in respect of demography, nationality, age, race, gender, education and work experience (Bengtsson et al., 2020). Irrespective of the fact that diversity in the top management team provides "organisational level capability" and influences the success of the organisation, diversity can either have a positive or negative effect or can be deemed insignificant (Bengtsson et al., 2020, p. 3).

Where diversity in the top management team harms the organisation, the consequences may include interpersonal conflict in the leadership team, dysfunctional conflict, stereotyping, failure and difficulty in communication, poor strategic decision-making and a higher turnover of employees (Bengtsson et al., 2020; Samba et al., 2018). The effect of the top management team diversity, albeit positive or negative, will influence the quality of the dissenting opinions of an organisation. The top management team has a substantial influence on the management of knowledge within an organisation (Singh et al., 2021) and any negative dissent within the top management team will have a negative effect on sharing of knowledge and strategic decisions within the construct of strategic shared leadership.

2.8 CONCLUSION

The meso-level of dynamic capabilities encapsulates the relationships and interpersonal interactions between employees. The meso-level is the missing link to exploring how

individual-level dynamic capabilities (micro-level) and more specifically, dynamic managerial capabilities lead to the establishment of organisational-level (macro-level) dynamic capabilities (Salvato & Vassolo, 2018).

From the above exposition of the relevant theory, there is evidence that suggests the meso-level dynamic capabilities of an organisation are significantly influenced by interpersonal factors and interactions. The literature suggests that managerial cognition, managerial social capital and managerial human capital play a significant role in the individual-level managerial dynamic capabilities as well as team-level dynamic capabilities.

Dynamic managerial capabilities, as a sub-field of the DCF, correlates with the basic principles of RBT which identify managerial human and social capital as organisational resources. These resources can be used to sense any change in the organisational environment including threats and opportunities and seize the opportunities available to the organisation to transform its existing resource base.

The role of individuals, from the CEO, TMT and even individuals involved in the senior management level, is critical in the development of managerial capabilities and ultimately, organisational-level dynamic capabilities. Relevant to this are the factors influencing employee relationships from productive dialogue, emotion, trust, and creativity to the psychological safety to share new ideas.

CHAPTER 3 RESEARCH QUESTIONS

The purpose of the research study is to address the question of which interpersonal factors and interactions influence meso-level dynamic capabilities. The overall purpose of the research can be divided into three sub-questions as described below.

Research Question 1

What are the inherent factors influencing employee participation in the sensing, seizing and transformation of dynamic capabilities?

Research question 1 flows from the literature review on the dynamic capability framework as well as dynamic managerial capabilities. Per the critique raised by Salvato and Vassolo, the current format of dynamic capability theory does not explain the integration of individual employees' contributions in more formal organisational-level capabilities (Salvato & Vassolo, 2018). This led to the development of a multi-level approach to dynamic capabilities and the introduction of the 'meso-level dynamic capabilities concept.

The question remains as to which factors persistently influence the involvement and participation of individuals in the micro-foundations of sensing, seizing and transforming operational capabilities into dynamic capabilities. Included in these factors are the inherent individual factors such as educational background, emotion, creativity, knowledge and skills, relationships and way of thinking.

In the context of the current research, it is envisioned that this will influence the dynamic capabilities of a research organisation to stay relevant to its funders and expand its resource base.

Research Question 2

Which interpersonal factors influence the interactions between employees on the meso-level?

Research question 2 originates from the literature summarised in paragraph 2.5 as well as the specific factors identified in the remaining literature as influencing interactions

between employees. Some key factors are trust, productive dialogue, diversity, psychological safety and the ability to share ideas, the role of the CEO. It is surmised that these factors will have a direct influence on the ability of the research organisation to sense changes in the business environment as well as to seize opportunities.

Research Question 3

What is the effect of interaction with the organisational leadership, if any?

Research question 3 emerges from the literature on strategic and shared leadership. It is evident from Chapter 2 that the CEO of an organisation plays a pivotal role in the development of managerial dynamic capabilities. This leads to the question of how it works and looks on a practical level in a research organisation.

A consistency matrix is attached hereto as Appendix A.

CHAPTER 4 RESEARCH METHODOLOGY

4.1 INTRODUCTION

This chapter sets out the research methodology followed in the execution of the research study and answers the research questions as in Chapter 3. This explorative qualitative study investigates the interpersonal factors influencing meso-level dynamic capabilities in grant-funded research institutions.

Primary data was collected by conducting semi-structured interviews with senior-level employees in grant-funded organisations. A subsequent thematic analysis was conducted analysing the primary data obtained in the interviews, the findings of which are discussed in Chapter 6. No secondary data was collected for this study.

The limitations of the study, reliability and ethical considerations will also be discussed hereunder.

4.2 CHOICE OF RESEARCH METHODOLOGY AND DESIGN OF THE STUDY

As mentioned, this is an explorative, qualitative study. An interpretivism philosophy was considered suitable for this study given that the paradigm was to understand human behaviour. Interpretivism is focused on understanding the why, how and processes through which social action happens (Bell et al., 2019). The research study intended to explore and discover new insights and understanding of the existing phenomenon of meso-level dynamic capabilities within the grant-funded research industry. More specifically, the study explored the interpersonal factors influencing interactions between employees on the meso-level within an organisation, which in turn, affects the development of organisational-level dynamic capabilities.

The research setting for this study was the grant-funded research industry. More specifically, the research focused on organisations whose predominant source of income is earmarked for use in research activities.

4.3 UNIT AND LEVEL OF ANALYSIS AND SAMPLE

To avoid any misattribution and misinterpretation of data, it is pivotal to identify a level of analysis (Bell et al., 2019). The level of analysis for this research study was set at an

organisational level. The unit of analysis is the meso-level dynamic capabilities on an organisational level. The study sample will consist of senior-level managers employed in grant-funded research organisations. These are individuals a) who make up the senior management level of grants-funded research organisations, b) who are intricately involved in the core business of the organisation or c) professional specialists (researchers) in the organisation.

This group of individuals constitute the meso-level within an organisation and have a shared place within the organisational structure being senior management-level employees and a common identity in the execution of the core business. This was important especially as far as the sources of dynamic managerial capabilities are concerned: managerial cognition, managerial human capital and managerial social capital. It could be argued that there was a possibility that employees on a more junior level or with less work experience, will lack the necessary insight required for the research.

4.4 SAMPLING METHOD AND SAMPLE SIZE

The setting for this research study was the grant-funded research industry which comprises various organisations differentiated in business models, legal structures (non-profit, public benefit organisations and income-tax exempt organisations) and profit objectives. The unit of analysis had been selected to benefit the research questions in line with purposive sampling (Bell et al., 2019).

For the study, the population target group (sample) within the organisations was the group of individuals as described in paragraph 3 above. The unit of observations was individuals considered senior managers or experts in the industry with expert knowledge. Expert knowledge was determined by the following criteria: a) individuals with more than ten years of experience in the industry, and/or b) individuals holding senior positions within the industry.

A total number of 15 interviews were conducted. The research participants were selected through a purposive sampling process. Purposive sampling is the strategic process of selecting research participants to ensure research participants are relevant to the research questions being considered (Bell et al., 2019).

A significant number of the interviewees were also identified through snowball sampling. Snowball sampling has been defined as "any type of sample recruitment strategy, whereby all or a portion of participants who are asked to provide data are not directly recruited by the researcher but through other persons who connect them to other persons as participants" (Koopman et al., 2019; Goodman, 1961; Manis & Choi, 2019; Marcus et al., 2017, p. 636). In terms of snowball sampling, the researcher relies on the initial participants of the research study to establish contact with possible additional participants (Bell et al., 2019).

After each interview, the interviewee was requested to advise, now with a full understanding of what the research and interview were about, whether they can refer an acquaintance or colleague who will be willing to do an interview. A total of 6 interviews were conducted with individuals who were included in the sample through snowball sampling referrals.

4.5 RESEARCH INSTRUMENT AND DATA GATHERING PROCESS

In a qualitative study such as the one at hand, the researcher is considered the "data collection instrument and cannot separate themselves from the research" (Fusch & Ness, 2015, p. 1411). This raises the concern of the researcher's bias or the influence of the researcher's lens as the researcher's view is present in the research process (Fusch & Ness, 2015). To counter the effect of the researcher's lens, the research instrument was used consistently and diligently throughout the research interviews.

The research instrument for this study was a semi-structured interview guide and a copy of the interview guide is attached hereto as Appendix B. Semi-structured interviews were conducted in line with a list of topics that arose from the literature review. The structure of the interview guide provided the interviewees with the opportunity and leniency to raise their opinions on various topics.

At the commencement of the interviews, interviewees were given a brief overview of the research being conducted and reassured that their names and the name of their employing organisation will not be disclosed. Furthermore, the assurance was given that no personally identifiable information will be disclosed. The interviews lasted approximately 20 to 60 minutes. Interview questions were divided into four sections: foundational questions regarding the background of the employees, contextual questions regarding the history of the employing organisation, questions exploring the interactions

between the interviewee and his/her team and colleagues and lastly, questions exploring the interactions between the interviewee and management.

One of the concerns in qualitative research is to determine the required sample size which will be sufficient to address the research questions (Bell et al., 2019). According to Guest et al., the more well-known an idea, experience or particular knowledge is, the smaller the study sample will be that is required to effectively answer the research questions (2006). The authors state that if "the goal is to describe a shared perception, belief, or behaviour among a relatively homogenous group, then a sample of twelve will be sufficient" (2006, p. 76). Initially, it was envisioned that a sample size of 15 to 20 interviews should suffice for this study depending on when saturation was to be achieved.

Twelve interviewees were employed within organisations operating in the medical research field where funding is mostly forthcoming from governments (South African and foreign), philanthropic institutions and businesses. This is in line with the statistics (see Chapter 1) that the medical and health sciences are the biggest research and development industries in South Africa. The remainder of the interviews were conducted with individuals involved in other research fields.

Data saturation is reached when one of the following factors is present: sufficient data and information are available which renders the study replicable; the data renders it impossible to code new themes; or lastly, "when the ability to obtain new additional information has been attained" (Fusch & Ness, 2015, p. 1408; Guest et al., 2006). Interviews were conducted remotely over Teams. Due to connectivity issues plaguing some of the interviews, the video capacity of Teams was not used. The interviews were recorded separately using Otter.ai. After concluding the interview process, the transcriptions done by Otter.ai were verified in line with the audio recordings. Any personally identifiable information was removed from the transcriptions.

4.6 DATA ANALYSIS APPROACH

The interviews were recorded and transcribed using Otter.ai. This was done in line with the consent of the interviewees. Bell et al. state that "unlike quantitative data analysis, there are no clear-cut rules about how qualitative data analysis should be carried out" (2019, p. 517). For this research study, a thematic analysis was conducted. Thematic

analysis is a research method for "identifying, analysing and reporting patterns (themes) within data (Braun & Clarke, 2006; Nowell et al., 2017; Snyder, 2019).

In their 2006 article, Braun and Clarke set out a six-phased approach for thematic analysis (Braun & Clarke, 2006, 2021b):

- Phase 1: Getting acquainted and familiar with the data
- Phase 2: Coding of data in a methodical manner
- Phase 3: Creating codes and themes from the data
- Phase 4: Contemplate, develop and review themes
- Phase 5: Finalisation and refining of themes
- Phase 6: Report writing

The six-phased approach of Braun and Clarke (Braun & Clarke, 2006) was followed in the execution of the thematic analysis while using the software program, Atlas.ti. Transcriptions of the interviews were uploaded into Atlas.ti whereafter the data was analysed and prevailing codes generated. The codes were categorised whereafter the themes were identified. The identification and generation of specific codes, categories and themes will be discussed in Chapter 5.

During the analysis process, an inductive approach was followed to identify and generate themes from the data. Inductive thematic analysis is a data-driven followed by the identification and generation of themes in terms whereby data is analysed and coded independently of any prior established codebook (Braun & Clarke, 2006). The inductive thematic analysis does not take place with a complete disregard for the theoretical considerations which formed the basis of the research however, during inductive analysis, the research questions may evolve during the coding process (Braun & Clarke, 2006, 2021b).

During the data-gathering process, it became evident that differentiating and interesting insights were forthcoming from interviewees involved in industries other than the medical research industry. As advised by various authors, dissenting insights from the main data analysis outcomes should not be ignored and were included in the analysis process and findings (Braun & Clarke, 2006; Nowell et al., 2017).

4.7 RESEARCH QUALITY AND RIGOUR

The trustworthiness of qualitative research is determined by the following criteria: a) credibility (of both data sources and individuals) and confidence in the truth of the research findings, b) the extensive engagement of the researcher in the research field, c) triangulation, d) transferability, e) dependability and lastly f) confirmability (Anney, 2014; Nowell et al., 2017).

Triangulation involves the use of one or multiple different data sources or research methods to ensure the accuracy and correctness of data (Bell et al., 2019; Natow, 2020). Natow explained the use of different data analysis techniques as a form of triangulation in qualitative research as follows:

Researchers may also employ multiple data analysis techniques. Distinct from a mixed methods study, this form of triangulation involves utilising multiple approaches for analysing data. Qualitative researchers often take approaches to data analysis that are both inductive (drawing findings and concepts out of data) and deductive (using data to test existing theories and concepts). For example, a researcher may begin an inductive analysis by analysing themes emerging from data, and then conduct a deductive analysis to locate additional data either supporting or refuting emergent propositions (2020, p. 162).

In Chapter 5, the topic-specific opinions and insights provided by various participants, which constitute different data sources, were triangulated. The comparison between the different data sources indicated similarities and disagreements between the data sources adding to the reliability and dependability of the data.

4.8 ETHICAL CONSIDERATIONS

The researcher obtained written approval from the GIBS Research Ethics Committee on the 24th of August 2022. A copy of the approval is attached as Appendix C. Interviewees were contacted before the interviews were conducted to ascertain whether they are willing and able to participate in the research study. Where individuals agreed to do an interview, the written informed consent form was emailed to the individuals with a request to return a signed copy before the interview. All of the interviewees consented in writing to the interview being conducted. A copy of the informed consent form is attached as Appendix D.

The interviewees were not afforded anonymity however the researcher committed that personal information will be kept confidential. No identifiable information about the interviewees, or the organisations they work for, will be disclosed to GIBS, in the written transcription or this dissertation.

As per the requirements of GIBS, research records will be stored for 10 years. The transcriptions of the interviews have been anonymised and will be stored with GIBS and on personal cloud storage.

4.9 LIMITATIONS OF THE RESEARCH DESIGNS AND METHODS

This study's qualitative research will focus on a specific industry: the grant-funded industry and thus generalisability of the results is limited. As the researcher is currently employed by an organisation within the grant-funded environment as described above, the risk of research bias was a possibility which was mitigated. The possible researcher bias was managed by diligently following the interview guide and requesting the participants to answer questions and to provide detail as if they are having a conversation with someone who does not know the industry.

CHAPTER 5 FINDINGS

5.1 INTRODUCTION

This chapter presents the noteworthy findings of the interviews conducted with the 15 participants. An overview of the participants and the process followed during data analysis, will be provided through an explanation of the data and the themes created from the data. The data analytics, themes and findings are discussed concerning the specific research questions identified in Chapter 3 and supported by explanatory quotations from the interviews.

5.2 OVERVIEW OF STUDY PARTICIPANTS

Interviews were conducted with 15 study participants. The participants could be divided into two groups in terms of their positions in the industry: 12 participants employed within the medical and health-related research industry and 3 participants employed in the non-medical and health-related industry. Some distinctive insights were forthcoming from the two groups.

Details of the participants are summarised in the table below. According to the anonymity undertaking provided by the researcher, a unique identifier was allocated to each interview and their titles were described in generic terms. The data reflected in the duration column below reflects the participant's total duration of employment at their current employer and not necessarily the participant's cumulative employment within the grant-funded research-related industry.

All of the participants provided written consent and complied with the sample criteria: individuals a) who make up the senior management level of grants-funded research organisations, b) who are intricately involved in the core business of the organisation or c) professional specialists (researchers) in the organisation (with more than 10 years' experience in the industry).

Participant	Age	Gender	Race	Job Title	Duration (Approx. years)	Education
PAR 1	40	Male	Coloured	IT Manager	8	BCom Informatics; Diploma Microsoft; Systems Engineering
PAR 2	42	Female	Indian	General Manager	15	BCom Finance (not completed)
PAR 3	49	Female	White	Finance Manager	20	MAP Course; Environment Course
PAR 4	46	Female	White	Finance Manager	14	N/A
PAR 5	55	Female	Coloured	Contracts Manager	18	General Training: Computer Science
PAR 6	53	Female	White	Senior Risk Manager	24	Business Diploma; BCom Management (ongoing)
PAR 7	50	Female	White	Strategic Initiative Lead	16	BSc Microbiology and Physiology; Masters in Molecular Medicine
PAR 8	37	Male	Black	Portfolio Manager	6	Post Graduate Certificate Project Management; Master in Development
PAR 9	50	Male	White	Macro Services Manager	14	Masters in Macro Economics
PAR 10	46	Female	White	Technology Director	18	Undergraduate and Masters Psychology; Masters in Information technology
PAR 11	37	Female	Black	Finance Director	2	BCom Accounting; Honours Financial Management; Masters in Development Finance
PAR 12	49	Male	White	Product Management Director	11	Chemical Engineer; Masters industrial engineering; PhD Industrial Engineering
PAR 13	49	Female	White	Director: Maternal Health Research	16	MBChB Paediatrician
PAR 14	47	Male	Indian	Senior Researcher	10	PhD Chemical Engineering
PAR 15	36	Male	Black	Senior Policy Advisor	3	Masters in Development Studies

Table 1 Overview of the participants (student's own)

5.3 DATA ANALYSIS PROCESS

In line with the six-phased process of Braun and Clarke (Braun & Clarke, 2006, 2021a, 2021b) identified in Chapter 4, the researcher familiarised herself with the content of the interviews by listening to the recordings and reading the transcriptions of the 15 interviews. The first round of coding was done, which commenced with the first interview and upon conclusion of all 15 interviews resulted in 198 codes. The second iteration of coding followed and superfluous data codes were deleted, and similar codes were merged into one. In the end, 147 codes were used in the analysis process.

Data saturation was reached with the interview of Participant 13. As per Figure 1, only 1 new code was generated from Participant 13's interview. Participants 14 and 15 are excluded from the table as no new codes were generated from their respective interviews.

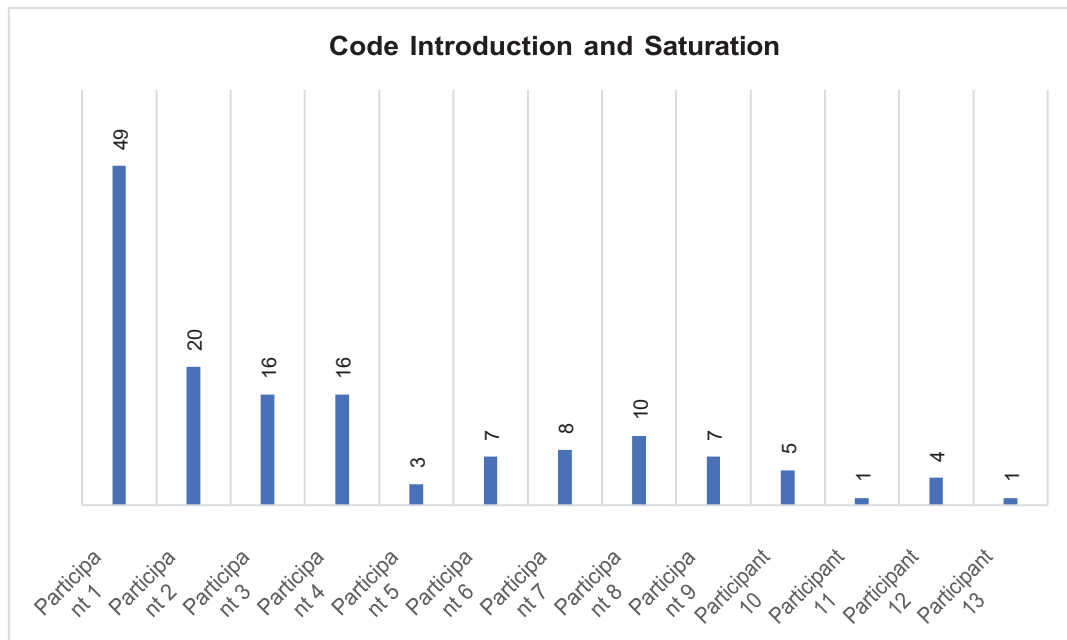


Figure 1: Code introduction and saturation (Student's own)

In further support of data saturation, figure 2 represents the saturation of code distribution across participants. From figure 2 it is clear that the codes used in the data analysis of the interviews of participants 14 and 15 were all repeated codes.

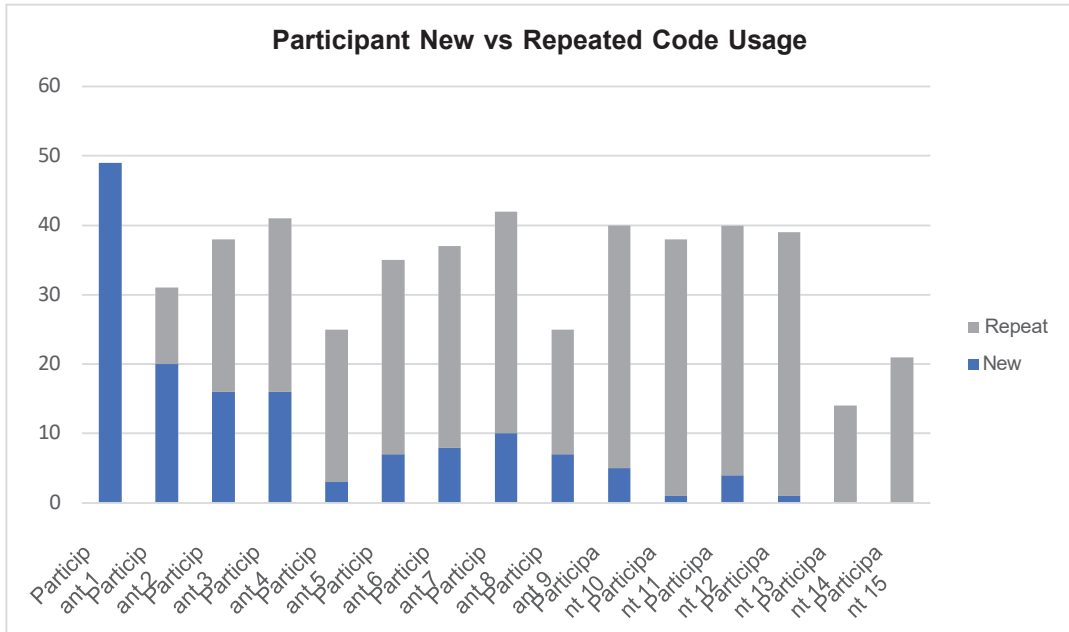


Figure 2: Participant new vs repeated code usage (Student's own)

In total, there were 515 code occurrences throughout the 15 interviews. Participants 1, 4, 8, 10 and 12 provided the greatest number of code mentions with 40 or more code mentions per participant. Participants 14 and 15 were the participants with the least code mentions with 14 and 21 codes each.

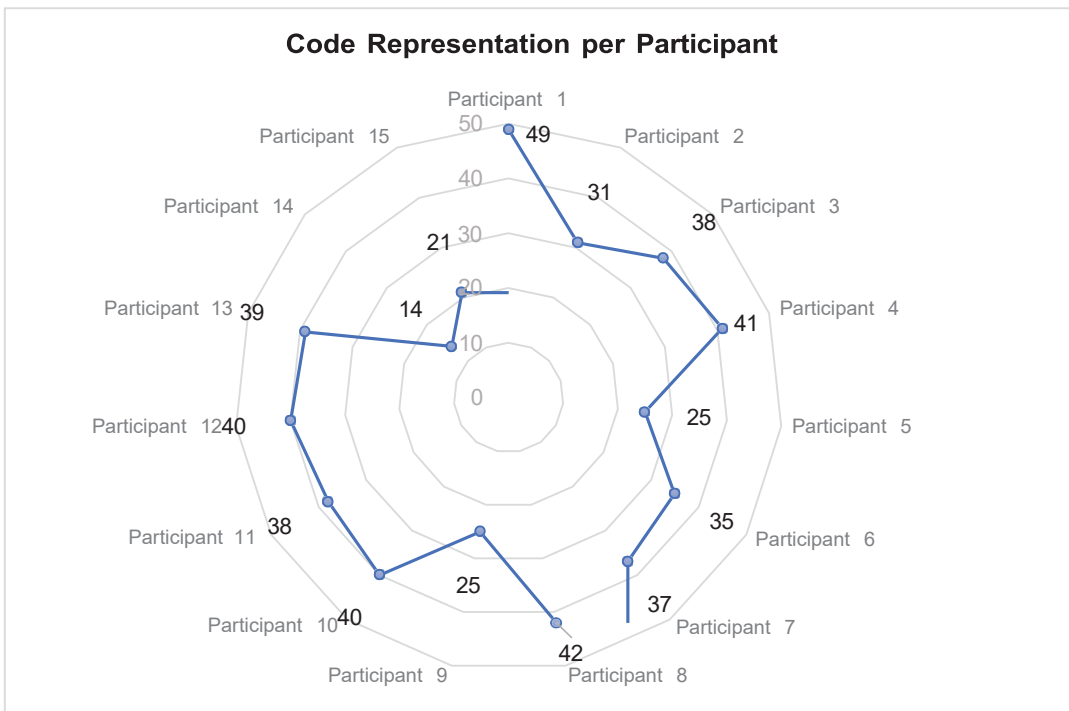


Figure 3: Code representation per participation (Student's own)

The top 10 codes are reflected in Figure 4 which lists the codes and the number of times the code was used in the analysis process.

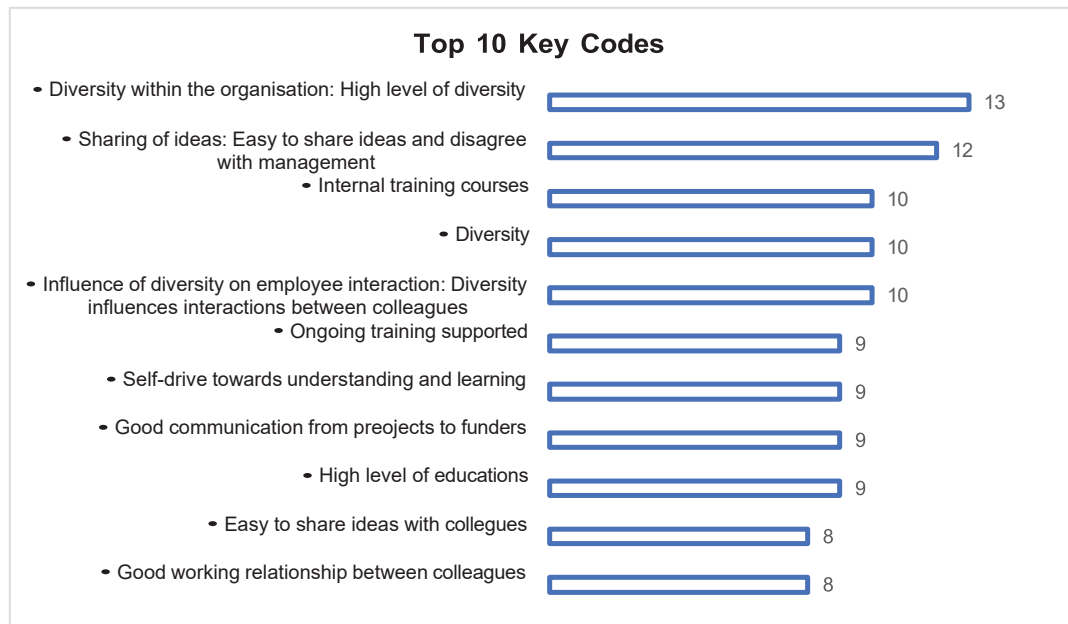


Figure 4: Top 10 key codes (Student's own)

The themes created in the data analysis process are discussed as they relate to the research questions. The structure of the discussion will be to provide a diagram of the theme, its categories and codes. Evidence-based participant quotations will be provided detailing the influence of the theme as elicited by the research question. To stay true to the opinions raised by participants, quotations used in this Chapter (as well as Chapters 6 and 7) remain mostly unchanged. Where any names were included in the quotations, the names were removed and replaced with "XX". The only other revisions made were to remove repetitive words and to correct grammatical mistakes. Finally, a brief conclusion will be provided for the section with an overall conclusion at the end of the chapter.

The following themes, categories and codes will be discussed per the research questions:

OVERVIEW OF CHAPTER			
RESEARCH QUESTIONS	THEMES	CATEGORIES	CODES
<p>RQ1</p> <p>What are the inherent factors influencing participation in the sensing, seizing and transformation of dynamic capabilities?</p>	<p>Diversity</p> <p>Organizational Culture</p> <p>Skills of individuals</p>	<p>Diversity within the organization</p> <p>People orientated culture</p> <p>Professional and open culture</p> <p>Skills involved in engagement with colleagues</p> <p>Skills involved in exercising of duties</p> <p>Skills involved in improving capabilities</p>	<ul style="list-style-type: none"> • High level of diversity • Gender and age diversity • Race diversity and bias • Diversity of technical abilities and diversity in thought • Supportive working environment • Social engagement between employees • Ability to unite people and maintain relationships • Authenticity and emotional intelligence • Problem solving • Communication • Self-drive to improve • Participation in advisory boards
<p>RQ2</p> <p>Which interpersonal factors influence the interaction between employees at the meso-level?</p>	<p>Diversity</p> <p>Team Culture</p>	<p>Influence of diversity on employee interactions</p> <p>Warm and open culture</p>	<ul style="list-style-type: none"> • Influence of age diversity • Acknowledgment of diversity • Respect • Sharing of knowledge
<p>RQ3</p> <p>What is the effect of interaction with organisational leadership, if any?</p>	<p>Leadership</p> <p>Interactions with Management</p>	<p>Positive attitude of employees</p> <p>Positive leadership aspects</p> <p>Negative leadership aspects</p>	<ul style="list-style-type: none"> • Collaborative leadership • Responsive and approachable • Supportive and encouraging • Isolated and top-down leadership • Lack of communication • Negative feelings towards leadership • Supportive management • Lack of clarity in communication

Figure 5: Overview of themes, categories and codes (Student's own)

5.4 THEMATIC ANALYSIS TO RESEARCH QUESTION 1

The purpose of the research study is to address the question of which interpersonal factors and interactions influence meso-level dynamic capabilities. The first sub-question is:

What are the inherent factors influencing employee participation in the sensing, seizing and transformation of dynamic capabilities?

Five key themes were identified as factors having a critical influence on employees participating in the sensing, seizing and transformation activities of an organisation. These five themes are diversity within the organisation, company culture, skillset and training of individual employees and interaction with management.

5.4.1 Diversity

Diversity is a popular and prevalent topic, not only as far as it relates to strategy literature but also in the sense of transformation. The participants provided detailed insights into the role of diversity within their employing organisations. The discussion on diversity is context specific with the study being conducted within the grant-funded research industry in South Africa. Due to its controversial history, South Africa has a complicated relationship with diversity and it may neither be suitable nor advisable to apply the findings on diversity within another study setting or industry.

In organisations, "*where you can find any kind of personality any kind of culture around*" diversity is "*something that we have to be very sensitive to when you're working with people*". (Participant 4)

Diversity is definitely a factor to be considered in the scope of this study and for this discussion, diversity was divided into two categories: diversity within the organisation and the influence of diversity on employee interactions. The influence of diversity on employee interactions will be discussed concerning Research Question 2.

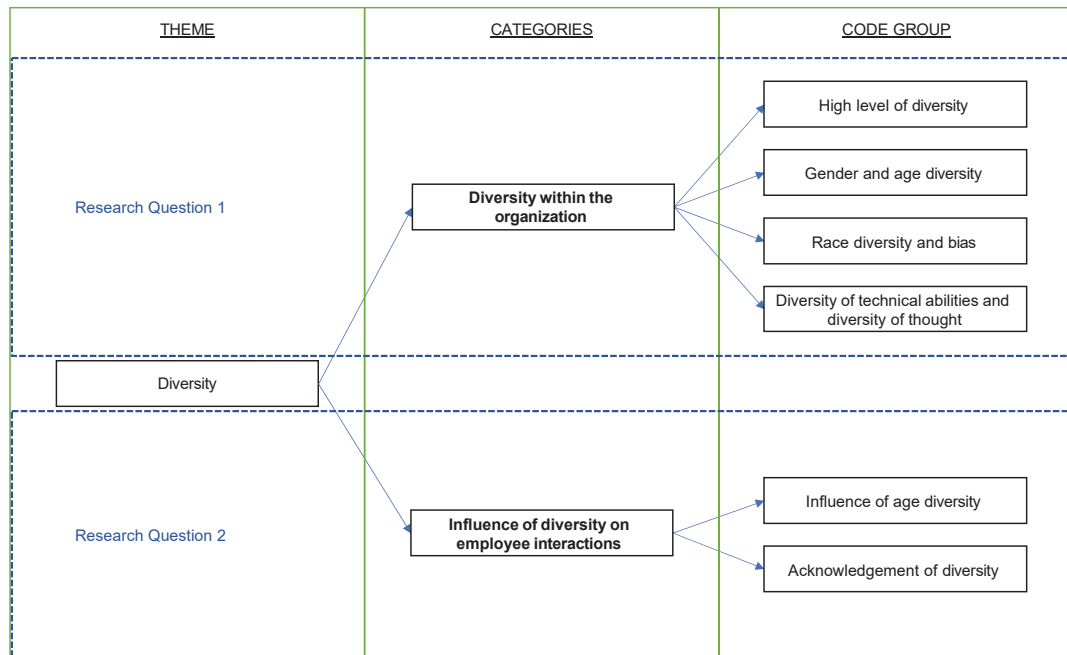


Figure 6: Breakdown of diversity as a theme (Student's own)

5.4.1.1 Diversity within the organisation

Four aspects of diversity within an organisation will be touched on in this paragraph: a) high level of diversity; b) gender and age diversity; c) race diversity and bias and lastly d) diversity of technical abilities and diversity in thought

a) High level of diversity

The participants described their respective employing organisations as organisations presenting a high level of diversity in terms of gender, age, educational and social background, sexuality, culture as well as language:

"When it comes to diversity on all in all departments, we have different types of people and culture working with us. So it is diverse in that way". (Participant 2)

".we've got people living in Durban who live in a different time zone from Joburg. We have people living in PE. You know, we've got guys, we've got married people, we've got have the divisions together and have a culture day it would be like rainbow colours. And everyone's got, you know, we've got all the people we've got doctors we've got people who understand finances, we got people who don't

understand finances, so it's just a big pot of liquorice all sorts. You've got your favourites and you've got those that you are not too mad about. But it's still in your packet". (Participant 3)

"From a diversity perspective, very diverse. We have everything from females, different races, males, all the different races." (Participant 10)

Diversity is a pivotal aspect of the South African community and as Participant 9 describes (referring to their organisation), *"diversity plays a kind of central core to everything"*. A deeper reflection on this statement suggests that a high level of diversity is to be expected in successful organisations within the South African context. Diversity is not only central to the staff complement but also engagement between colleagues and external parties.

a) Gender and age diversity

The concept of diversity automatically lets one's mind drift towards aspects such as age, gender and race diversity. Depending on their specific role and departments within their organisation, participants presented different views on gender diversity. From a) the industry and organisation are more male-dominated to b) a disproportionate amount of females due to the nature of the work being performed. Participants 8 and noted 10 the following:

"So in terms of agenda, because we are primarily in an organisation which is in the health space, you know, these curative services traditionally have always been very much skewed to females. So I think this is reflected in most of the divisions which are housed within the organisation, there is a very high proportion of females to males. But that's the same across most of the health sectors". (Participant 8)

"Very diverse workforce. So we have really people from different cultures. Also, across the globe, not only in an African context, different races. Well, different genders obviously. In the health development side of the business, we do see that we have more female black ladies because that is I think, in correlation with the work that they do so all the nursing and those types of things. In the technology side of the business side is also very diverse, I think very equally also distributed so". (Participant 10)

To a certain extent, the opinion of participant 1 both supports and contradicts the viewpoint of participants 8 and 10. The individual stated that *"we are extremely diverse. We have you know, teams from different backgrounds and religions and nationalities. I think the demographic could change slightly in the sense of, you know, male to female, but I think it's also the industry that we in, we're in a very sort of male-dominated type environment"*.

This suggests that the diversity within an organisation is influenced by the type of services or work performed in different spheres of the organisation. An inference may be drawn that this is due to the traditional male and female-orientated professions and fields of study. This topic is outside of the scope of research undertaken in this study and will not be commented on further.

Age diversity and the influence thereof on the interactions between employees will be discussed in paragraph 5.5.1.

b) Race diversity and bias

The prevalence of race diversity was evidenced by the majority of participants mentioning it in their interviews. Race diversity as a factor influencing employee participation will not be discussed except for one aspect: several participants noted a possible racial bias in the recruitment process. Various possible explanations were proffered for the bias: lack of required skill set, the geographical area in which the recruitment takes place and so forth.

Participant 8 provided an in-depth explanation:

"In terms of race, to a certain extent, I think it mirrors the diversity within the country. It's predominantly black, not, not only in the organisation, but also in the various divisions the ones that I'm aware of, are predominantly black, but obviously, you have clusters of pockets of other races within various units or entities. Sometimes we do find concentration in some departments of a particular race than others. But I guess this reflects, in some ways, you know, certain biases that people have when it comes to recruitment. . . , in some units, you know, you do find the clustering of a particular race more than others. The language I think also follows the race. Very diverse. Although very diverse overall, I do find that for projects which are

implemented outside of, you know Gauteng in other provinces, you then obviously, have bias within that particular locality. So for example, if you have a project being implemented in the Eastern Cape, you predominantly have Xhosas being represented more in those projects. Yeah, my earlier comment applies you do have some diversity and clustering of certain races in other departments. Particularly when you get to management positions".

The biases noted by participant 8 were supported by participant 11 who enunciated the differences in the staffing compliment at different located offices:

"I could pick up that there's a difference depending on which office you're at. So, me being based in the Rosebank office, and the time that I was in that office, I really did not experience you know, any form of whether discrimination being treated differently, or anything like that, and also, I don't also see variations even in terms of things like your salaries, which could really suggest that there might be issues that need to be addressed. In terms of even just the roles. I also don't see any disparities in terms of, you know, the senior leadership. So I haven't really experienced anything that I could say, is a huge issue, especially within the Rosebank office. In our Cape Town office, there's a little bit of a racial issue. And my observations are that it has to do with colour, and I was only able to observe this because I've also lived in Cape Town and worked in Cape Town, and those racial issues, when I was still with another entity were also prevalent."

This was further supported by participant 12:

"I mean, I say specifically black because I do think that we have a good representation in terms of the race in terms of coloured and Indian staff members. So I don't say it's all kind of all white. I do think it's specifically the black staff members are low. And as I suppose the other way of putting it also specifically black South Africans, the black staff members that we do have actually come from other countries, most of them will say that I think there is a glaringly obvious thing there with black South Africans. I don't know I suppose. The simple answer. I have no idea if this is right or not. This is that kind of more of a perception is that maybe it has to do with the population within the Western Cape. And most of our hiring happens within the Western Cape now".

This aspect presents a further opportunity for research with a focus on how geography influences the staff complement and diversity within the organisation.

d) Diversity of technical abilities and diversity in thought

The more well-known aspects of diversity have been touched on. One additional form of diversity came to the fore during the data analysis process: diversity in technical abilities and diversity in thought. Participant 12 noted the following:

"Let's talk about technical diversity. I think that's pretty broad, especially with the health technologies business. We have people from all different backgrounds in terms of technical skills, understanding of what they studied, etc. So that that's great, I would say as a group, and then in terms of, let's say, male, female, I think that's also great. I think it's a really good environment in terms of the split between the different genders. And I think that I suppose the other aspect of it is that which I suppose also goes to the culture, it's also a very accepting culture, I would say."

The dynamic of different technical skills, which in some circumstances include the ability to speak a third or fourth language, was noted to have a positive impact and identifies "where the strengths are with your team and as to where you can use them" (Participant 6).

The importance of technical or educational diversity and the opportunity it represents in relying on individual capabilities and strengths were supported by further participants:

"We all perform differently. We all have our expertise, and we all have our weaknesses. And it's about honing in on people's strengths and not on their weaknesses. You know, we all have weaknesses for a reason, because then it makes our strengths shine. You know you don't have to keep hounding people to be stronger. It's something that they. it's not who they are. So, our culture has to you have to adapt to what's in your surroundings." (Participant 3)

"I think there's quite a lot of idea-sharing. I think there is respect for the different personalities that make up that team. I think there is probably enough diversity within the team that everybody like, you know, that there are differences in the way that people see things and in terms of what their strengths are, and I think that our management team does actually have that diversity." (Participant 13)

Diversity of technical abilities and thoughts is also evident from the educational background and qualifications of the participants in Table 1. Qualifications vary over a range of fields of study: from informatics and economy to psychology and biology. It can be argued that successful organisations in the grant-funded research industry are characterised by highly and diversely qualified employees with a wide range of skill sets.

5.4.1.2 Conclusion on diversity

The data suggest that in high-performing and successful organisations, diversity is one of the key aspects in the structure and employment contingent of the organisation. If diversity plays a central and core role in the operations and capabilities of an organisation, it can be argued that it will influence the organisation on a micro level. From the interactions between employees, the sharing of ideas between colleagues, and the interpretation of information to the navigation of changing circumstances in the industry.

It is noteworthy to note that not one participant indicated that diversity has a negative influence on the interactions between employees. In summary, diversity (whether it is in terms of race, age, or abilities) creates an opportunity for the organisation to identify the strengths and weaknesses of their employees. It is postulated that organisations can apply these strengths to their benefit and furtherance of their dynamic capabilities.

Based on the racial bias discussion, the question arises whether the geographical location of an organisation influences its diversity and subsequently its dynamic capabilities. This aspect falls outside the scope of this research study and will not be commented on further.

In the words of Participant 11, diversity is to be embraced and differences between colleagues, whether cultural, religious or otherwise can be celebrated to create a sense of organisational unity:

“... if you work in an organisation where if you look at the executive leadership, it's people from different walks of life. It has nothing to do with just white. So there are different nationalities. There are opportunities for everybody. There are opportunities for growth, even for everybody, irrespective of where they come from. I think for me that, one suggests that we are diverse, but also you know, we have a culture of embracing each other's cultures. And it could be really in very subtle

ways like there are when there's some holiday maybe that's related to people that are Muslim, that provision is made for those people to have a holiday if it's a holiday or it's a Christian type of Holiday, you know, in a specific country and that day is also been recognised and staff would, you know, take a day off for whatever reason. So, for me you know, it's small things, but they also show that the organisation does recognise certain things that I mean, even if it's not a holiday, maybe it's I don't know its a Muslim day or whatever, there will be communication, you know, to celebrate the day with those who might be Muslim or whatever the case may be."

5.4.2 Organisational culture

Organisational culture also flowed from the data as a key factor influencing employee participation in the micro-foundations of dynamic capabilities.

Everyone is human and before *"you are an employee, you're also a person"*. (Participant 11)

This statement is central to a people-orientated environment where processes and practices have been established to prioritise the well-being of employees. Organisational culture as a theme comprises three elements: a) people-orientated culture, b) a performance-driven environment and c) a professional and open culture. The first and third elements will be discussed in this chapter.

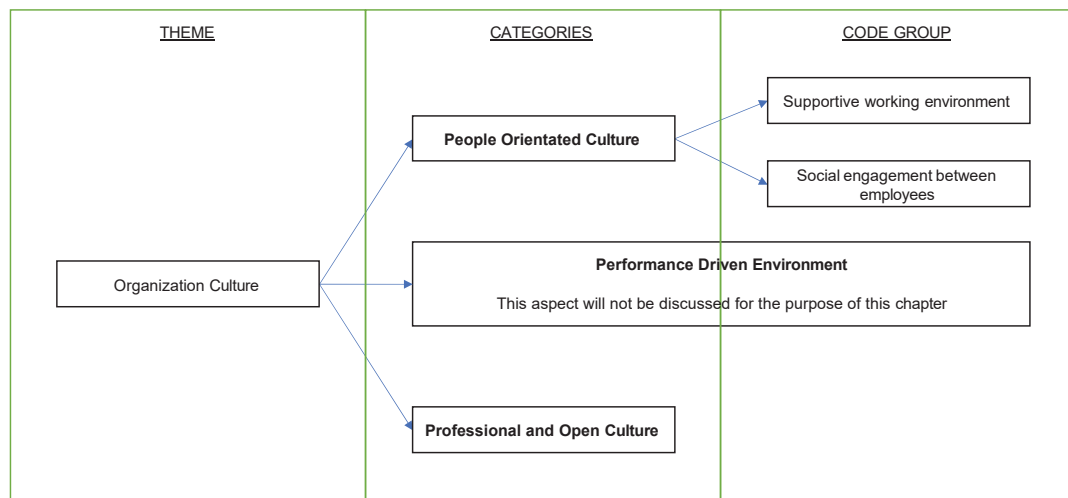


Figure 7: Breakdown of organisational culture as a theme (Student's Own)

In this discussion, only key elements, as indicated in Figure 7 will be discussed.

5.4.2.1. People-orientated environment

Various elements were identified to form part of a people-orientated culture including a) a supportive working environment focused on the well-being of employees, b) recognising the intrinsic value of employees and c) social engagement between employees.

a) Supportive working environment

The participants placed great focus and importance on a supportive working environment focused on the well-being of the employees. Emphasis was placed on the importance of inclusivity and recognising an employee as an individual, an individual with a family and responsibilities outside of the work environment. This principle was recognised by the participants as being applicable in their own hierarchical reporting line but also with their direct reports. Participants 8 and 11 noted the following:

"It's also being human and recognising that before you are an employee, you're also a person. So I prefer I always try whenever I engage with even my teams to really check on their well-being before the work . " (Participant 11)

"I think it will also try and be human about it. You know, sometimes you know life is not always you know, a straight line. People do have personal, personal issues to attend to from time to time. And obviously without pushing it. Do try and make people comfortable enough to bring that attention, those issues to the attention and whatever it is that they're comfortable sharing, allowing people to do so and trying to accommodate that within the working spaces." (Participant 8)

Placing the focus on an employee as an individual creates a social connection between the employee and manager which is beneficial to the organisation as a whole. As Participant 11 noted that *"you get more out of a person that feels that you really care about who they are as people before you start engaging with them in terms of what you're expecting from them in terms of work"*.

The supportive working environment is also characterised by an understanding that an employee, like all individuals, has a limited amount of time available. One participant described the interaction with their manager as follows:

"So my direct manager is a very family-orientated person, so extremely interested also in you as a person, and you never feel that he's just asking it because it's something to do and to pass the time in the first five minutes. It's a real interest in me as a person. The second thing is also my interactions is always looking at it from a time perspective and protecting people's time. So if you say yes to something clearly, you're going to say no to something else. So if it's yes in the workspace to do extra, we're going to say no to family. Right? So it's not a very autocratic way and it's all about business. And lastly, he's a very good listener. So if you tell him something, you know, really listen to reflect, and then give his view".
(Participant 11)

Respect for a colleague's time is intricately linked to a concern for their wellbeing and a "culture of wellbeing" (Participant 7) and a willingness to be accommodative to employees' needs:

"There is a lot of flexibility. There's a lot of room to accommodate people from all different walks of life. So you know I can be able to request some time to do something personal because I have an issue and that's really never an issue and make up the hours maybe say later on. So that culture really exists within the organisation which I think to some extent, for employees, it's really a plus."
(Participant 11)

b) Social engagement between employees

Social interaction and engagement between employees are key to creating a supportive working environment. Several participants are supportive of this statement and noted the importance of maintaining a balance of when to be involved. Participants 1 and 13 elaborated that the team initiates their social interactions:

"So I do find a lot of my team go away sometimes together. They socialise together, whether it's on weekends or after hours. I also need to understand and know when it's my time to be involved, and that also just makes them aware of the fact of how far they can go." (Participant 1)

"There's also a lot of effort within the team to try and have sort of team building not necessarily named as such, but they will do sort of various celebratory events and things like that. Probably about two or three times a year. Heritage Day was a big one. So the team really does try and make an effort and you know, I actually think that it's a very nice unified team, actually." (Participant 13)

The importance of social interactions was also supported and acknowledged by participant 8. Creating opportunities for employees to interact on a social level can also be initiated by the organisation itself:

"You know, I don't know if this was on the external but we also tried to bring the opportunities for the team to interact outside of the work environment. So every now and then we put together money and we have lunch and say, you know, no talk about work, you know, they are allowed here to speak about other things outside of work, when we have lunch and I think that builds some sort of rapport amongst the team gets people to develop, you know, deeper connections, which hopefully then allow, you know, filter through to better working relations amongst the team and hopefully more productivity within the team itself. So yeah, that kind of some of the things that we've tried to do to boost them with those interactions within the team."

5.4.2.2 Professional and open culture

Recognising the intrinsic value of employees is a concept reaching further than the acknowledgement of employees as individuals with responsibilities and interests outside of the work environment. Insights gained from the participants indicated that interactions with colleagues and their managers play a primary role in creating a professional and open culture where employees can be valued. Participant 4 noted the need for employees to be heard and the accompanying result of different work capabilities and strengths of individuals coming to the fore which ultimately benefits the organisation:

"I think it's important also that people feel valued and like we said earlier, motivated. I think it's important from a perspective from either supervisor or management manager that people feel like they are important and that they are heard that could also then, you know, for my influence, how they, you know, they work capabilities and how they actually deliver. So, I think that could possibly also be a factor for me

is that you keep people positive in the sense that they can get their work done and that they feel valued."

It can be argued that an open and professional organisational culture has some core attributes such as an open door policy and an environment conducive to the sharing of ideas irrespective of seniority or position within the company. This is beneficial to unlocking the strengths of each individual and increasing the productivity of the team:

"I would say it's not dictated because we always have meetings, senior management meetings, where we all have time to give input and make time to give suggestions of how things can be improved in the organisation. So it's very open. You are heard, you can make recommendations and I think it's a good working environment. So we have an easy open door policy with them and if there are any concerns or any issues that we have, we always are more than welcome to speak and seek guidance and advice. It's a good working relationship" (Participant 2)

"... but I do voice my opinion, and if it's not taken, I'm also not offended. So I'm also open to listening and maybe adjusting my opinion." (Participant 3)

"So, we have a very open policy whenever we discuss things and I think people also know when to say what in which forums, but in general, you can really open your mind and contribute as much or as little as you want. It's and I find the youngsters are very focal. And so are the older generation. It's the middle that listens more and they do right. So first the outer aspects are very focal. I must say, the younger guys really respect the experience of the older people in the team. And the older ones realise that that they didn't keep up with all the latest things so they respect the knowledge of the youngsters, which they also don't have at this stage. So interactions and diversity really bring out each of the strengths of everyone and you need that in a team. If everyone is the same you'll never achieve right." (Participant 10)

"very warm and open culture. So from my experience where I am, it's like a family. It's really close people have gotten to know over the past three years. And it's really a warm and open culture. That is how I would describe it." (Participant 10)

"Very flexible as well. Very engaging and yeah, very, very open relationships. We, you know, this team are able to raise issues because the culture allows that so I don't see anyone who kind of has difficulty raising an issue if they have an issue, but also they are the kind of team that will suggest things and do it themselves, you know, and really just keeping me in the loop." (Participant 11)

"Most of the senior management, it will open door policy and it actually helps we can go to our seniors who actually do, well actually, you know, support that in a spirit of inclusivity and non-discrimination." (Participant 15)

Despite the overwhelming consensus among the participants surrounding their positive interactions and engagements with their teams and management, participant 1 noted some difficulty and caution in sharing dissenting opinions with management. It can be argued that the insights provided by all the participants are of course subjective but also influenced by their unique experiences in the work environment. Even though some of the participants are employed by the same organisation, logic dictates that there are differences in the work environment (ranging in severity) based on the different management and leadership styles within the individual's department and reporting line. Participant 1 stated the following:

"But yes, there are a lot of discussions from voicing an opinion perspective, I think it's always very difficult. I think, you know when you do reporting into executive structures while you know, sometimes your opinions on things that don't, that you don't agree with is not necessarily something that you can just voice so it's always a fine line between you know, having to calculate and also timing, everything is about might be right, but the place might be wrong. So needs to be considered."

A professional and open organisational culture affords a level of accountability and flexibility to employees to perform their duties autonomously. Participant 1, who noted that despite being cautious about sharing dissenting opinions within the reporting line, stated that there is a measure of flexibility in making decisions and being accountable:

"I do have decision-making sort of accountability that I take upon myself and where I see fit or necessary. If it doesn't require any input from my boss, then I won't inform him because I will take it upon myself to have it either resolved, or to have it implemented in the repercussions I would have calculated, you know, if, if any,

and most of the time, I haven't really had, you know, serious situations around that. So I think it's quite good."

Participant 11 highlighted the importance of flexibility, which links closely with a supportive working environment as discussed in paragraph 5.4.2.1:

"For me, it's also the flexibility that plays a huge part in it because like I said if I need to be away for the next two hours, and I can catch up later, I can be able to do that. For us, as long as I'm able to deliver on what I need to deliver how I plan my hours is almost entirely up to me, but also it's out of respect to communicate, you know if you're not going to be around or anything like that."

5.4.2.3 Conclusion on organisational culture

It is evident that the prevailing culture in an organisation is critical to the success of individual employees as well as the organisation on a macro level. The various elements of a supportive environment and professional and open culture were discussed. It is critical for an organisation to create an organisational culture conducive to the sharing of ideas and developing the abilities of individuals which are considered as their strengths.

It is also interesting to note that a supportive environment directly links with supportive leadership and management as discussed in terms of Research question 3.

5.4.3 Skills of individuals

The skills of individual employees are critical to the success of the organisation and the employee's participation in the sensing, seizing and transforming activities of the organisation. These specific skills can be divided into technical skills as well as "soft skills" and the importance of both has been noted by the participants.

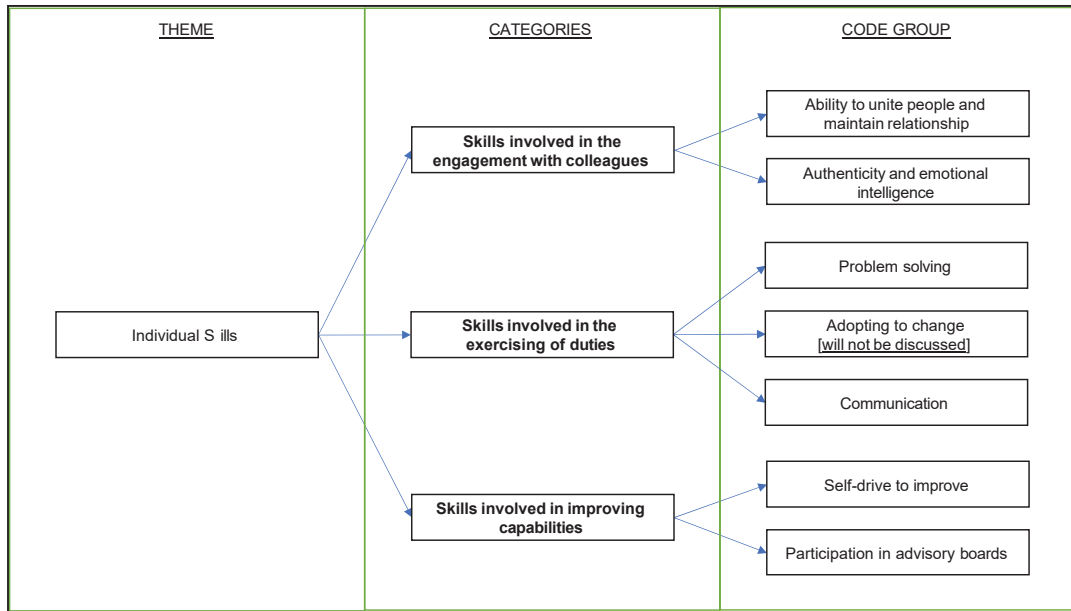


Figure 8: Breakdown of individual skills as a theme (Student's own)

When requested to provide clarity as to what the participant perceives to be their most important skills, the participants provided a rich description of skills ranging from attention to detail to problem-solving. There is a definite indication from the data that the majority of the participants consider their soft skills as most important to their skillset and ability to effectively perform their duties. One cannot overlook the role to be played by impeccable technical skills however it can be argued that this is secondary to the role of soft skills in the participation of the micro-foundations of dynamic capabilities.

The various soft skills mentioned by the participants can be divided into different groups: a) skills involved in the engagement with colleagues, b) skills involved in the exercising of their duties and lastly c) skills or actions involved in the improvement of their abilities. For this Chapter, only those aspects considered relevant will be discussed.

5.4.3.1 Skills involved in the engagement with colleagues

Skills involved in the engagement with colleagues will be discussed firstly in terms of the ability to unite people and maintain relationships and secondly, authenticity and emotional intelligence.

a) Ability to unite people and maintain relationships

The ability to unite colleagues as well as to maintain relationships were noted as critical soft skills involved in the engagement between employees. The ability to unite people can be applied in different situations including obtaining buy-in from different stakeholders on the same idea and calling forth the potential in a colleague to create unity under the same purpose within a team context.

In respect of establishing unity among colleagues, participants 1, 8 and 12 respectively noted the following:

"I also think I am very good at bringing out the best in certain people and bringing the best of people together."

".well the most important skill is my interpersonal skills, being able to establish and form relationships to advance my interests within my role."

"But maybe one other thing, I think what we definitely got better at is getting an alignment on things at different levels before to kind of take up to the next level. So going back to that governance board, it used to be quite a difficult meeting because I used to present stuff that no one in the meeting kind of either had originally seen or agreed with. And we've kind of introduced so with my manager, we've kind of introduced an approach where we almost have pre-meetings before that when I would say then all except two people in the room. I've already almost seen what we presenting and agreed to it or we've adapted it to take their inputs. It's about sessions a lot easier."

It can be reasoned that to possess the ability to unite people, an individual must be able to influence different colleagues based on the relationships that exist between them. The ability to maintain successful and productive relationships with colleagues or funders was commented on by various participants.

Participants 4 and 6 respectively noted the following:

"I think one of my best qualities at this point is my relationship, my customer service aspect of it. I'm very good at that. I manage relationships well and when people are

struggling with relationships, I can sort of help them with that. So yeah, I think I'm diverse in that sense, but I'm good at relationships. I wasn't always that way. I promise you in the beginning I've struggled."

"I think I'm very people orientated. I do have very good relationships with a lot of the doctors and professors out there. I know it's been over time, but I've actually put in work to develop them and listen to what people have to say. So I know that my door is always open and I have 10 million people coming past my office all the time to try and express their frustration or ask for advice. So I know that that's one of my good qualities."

This is supported by participant 14 who noted how essential it is to have influence and sincere relationships in building good teams:

"So that's what I'm saying you need to do you need both. Usually, if you come from a very academic, people don't focus too much on soft skills and this is why they aren't able to develop good teams. They aren't able to motivate people, they are not able to influence them. And so both are required because if you also don't have the technical skills you'll always have a disadvantage on the technical side."

b) Authenticity and emotional intelligence

Additional important soft skills influencing the interactions between colleagues are authenticity and emotional intelligence. Without authenticity and emotional intelligence, an individual will not be in a position to build sincere and influential relationships with colleagues. Participant 10 provided the following detail:

"I like to always be very authentic. People need to be comfortable when they have conversations with me so open and honest, always who I am. That's whom I bring to work. And the other skill is empathy. So really talking to people and understanding them and listening to them with empathy. So that's the two skills that I think work well with clients, with colleagues with people at home. Because I think definitely, all three of the people that I have lines to are very authentic. So if you're asked a question, they will tell you I cannot answer it. Because I can talk about that. Or they will say exactly what they think from the heart. So it is also very authentic."

It is suggested that authenticity is not only applicable to an individual's interactions with colleagues but also to the integrity of the information that is shared between colleagues.

5.4.3.2 Skills involved in the exercising of their duties

Skill and more importantly, diversity of skills are integral to a dynamic organisation and the development and promotion of the staff complement:

" diversity of skills. And I mean, I guess just general diversity, but also you know, you have you want people to be able to, I mean, some people have got very good strategic skills, other people are sort of more kind of maybe big thinkers or kind of, some are more in the minutiae. So I think the diversity of skills, fairness and I suppose generally just like a willingness to promote people, I don't mean that in terms of like, promote job wise, but just to, be able to actually let go of things and give people opportunity to be able to grow within their particular role. And, you know, to kind of forge their way forward, within their teams, because I think otherwise you struggle to grow your next layer of people who you really want to, to sort of take over." (Participant 13)

The predominant soft skills influencing an individual's ability to exercise their duties with a high level of quality are problem-solving, adapting to change and communication.

a) Communication

The ability to effectively communicate in a professional environment comprises two elements: the ability to listen and the ability to express ideas or opinions clearly and in a collegial manner.

Several participants noted the key importance of communication with participant 14 describing the ability to listen as:

".anyone in any type of management role is to be able to listen. Listen, and communicate respectfully. That's the keyword. Listening is just like any relationship you really have throughout your life. Whether it's a personal relationship with a family member, it's your husband, or your wife should be able to listen, just to listen. Listen, absorb what is being heard what someone's saying. This thing is very important."

It must be borne in mind that diversity influences communication as *"we all do things differently. We all see things differently. We all have different solutions. So if we're able to communicate that I believe that's critical for success."* (Participant 11)

The importance of communication is not just relevant to relationships between colleagues but also a key element in maintaining successful relationships with funders:

"The most important thing is to keep the communication lines very open. Because if for instance, they are introducing new reporting requirements, what is critical for us is to ensure that we understand them, and if we don't, we can be able to go back and ask for more clarity. So, the relationship we need to maintain with the funders is very critical for us to be able to implement what they expect what they are expecting us to do, whether it's a new research focus or it's a new reporting requirement. Yeah, so for us it's really making sure that we have a very good relationship with the funder, reaching out when we are not clear. Communicating when we need more information. Yeah. I would really say that's one way to ascertain that we may remain compliant with whatever could be asked by the funders for us to do." (Participant 11)

b) Problem-solving skills

In a demanding and highly pressured environment such as the grant-funded research industry, problem-solving skills are critical to the success of an individual as well as the organisation.

"I'm a problem solver. I love reporting. I take my job seriously. I take my deadline seriously. I am a good planner. I'm a good organiser. I'm a good team player. I pay good attention to detail. So a lot of my stuff and I'm not bragging but a lot of my work is of good quality." (Participant 3)

"So it depends on what the meeting is or the forum is. But if I can take an example across the teams, the first one would be that they are following the agile approach, so most of the conversations are there to understand it. So really listening and supporting a person thinking about how they can help us in the discussion to resolve issues that are in their way. So the problem-solving approach if you like, in all the discussions and then also, from a learning perspective, the team's always

continuously learning so they would say, this was what we've done. This is where we are now and this is how we can improve. So I've gone from interactions, all the interactions basically come to that point, somewhere in the (inaudible)." (Participant 10)

5.4.3.3 Skills involved in the improvement of capabilities

Skills involved in the improvement of individual capabilities are the self-drive to improve and participation in advisory boards.

a) Self-drive to improve

The high-level education and qualifications obtained by the participants are indicative of an inherent drive and motivation to keep on learning and improving their capabilities. This, however, is not a characteristic attributable to all the participants and the data suggest it is relevant to highly motivated individuals. The inherent drive or motivation to improve was described as follows:

"I also think I am very good at bringing out the best in certain people and bringing the best in people together. I think my technical knowledge of, you know, updated technology. And also I think my drive to understand things where I don't understand things. I definitely will make an effort to understand that. Yeah, I think that would probably be key right now. I think yeah, I think the act of sort of initiative that we do take on has put us in a position where we have taken on multiple roles within ourselves. You know, again, personally, from my perspective, I think for me, it's always been about my own development and, and growth" (Participant 1)

The drive to improve not only has relevance to the individual's technical capabilities but also to their ability to keep up to date with industry developments and funder requirements. The participants noted several ways in which they improve their skills and knowledge about the industry, from subscribing to newsletters to attending general and funder-specific training:

"Read, read and read some more. So a lot of it is digital reading. My favourite go-to source, especially on the business side is Harvard Business Review. I actually subscribed to Harvard Business Review. I know I could subscribe to a lot more

things but you know, there's only so much budget I have. So that's another thing I think is lacking is no dissemination of information around you know, if somebody wants to learn more about business in any of the syndicates I feel it's you have to seek out everything yourself." (Participant 7)

"I try and attend training on specific topics and then more broadly, you know, I also just try and learn something new every now and then. Although I've kind of slacked on that a little bit, I always try and keep learning something." (Participant 8)

"I'm subscribed to know a whole lot of communication platforms, which push content and updates from various vendors whether it be CDC, USAID, and so on. So I try and keep abreast of kind of the latest day-to-day developments through those email subscriptions." (Participant 8)

"So I think from an internal point of view, there's a whole drive to keep the entire company updated. Then there are also newsletters that I'm subscribed to, and webinars whenever they pop up. And it's something of interest to me and just reading up as well. So when I have a specific client that I'm working with or something that I need to do in a project, research." (Participant 10)

"But also, I try to gather as much information as I can in terms of what are we doing programmatically, And what are we trying to achieve. So I read program reports or narratives. What is it that we want to do so that you know I'm not only on the receiving end where I just wait for the program to figure things out? It has really helped me to be proactive in terms of even just proposing and making suggestions on what we can do to achieve our targets. So I found that very useful." (Participant 11)

A critical aspect of being successful in the grant-funded research industry is to be aware of any new developments or requirements being introduced by the Funders. This is not only a requirement on an organisational level but also at an individual level. The data suggested a further manner in which employees improve their skills is by attending training provided by their organisations or funder-specific training.

b) Participation in advisory boards

The self-drive to improve as well as the requirement to be continuously informed of funder requirements can be achieved in various ways one of which is for the organisation or individual to be part of industry advisory bodies. No information or evidence was forthcoming from the participants to indicate that their employing organisations form part of any industry advisory boards or "think tanks".

On an individual level, the participants indicated that there are individuals within the organisations that are involved in advisory boards and international industry committees and boards. These individuals who form part of such bodies are part of the executive leadership level within the organisation:

"A lot of our senior leadership team are, you know, appointed to various industry bodies, regulatory bodies, advisory councils, and various levels not only within South Africa but also regionally and internationally. You know, to give you an example, throughout the COVID period, our executive director was appointed to a Task Team advising on COVID regulations and other support." (Participant 8)

"Our founders are very much involved in many of the conferences. There is now an oncology consult conference in the US for instance, where he will be presenting on other reports and statistics. So they are involved. I cannot name them for you." (Participant 10)

Interestingly, only one of the participants formed part of a collaborative workshop and advisory panel between the World Health Organisation and another entity. This specific participant is a specialised and senior researcher within the applicable field of study.

5.4.4 Interactions with management

The influence of interactions with management on employee participation will be discussed in paragraph 5.6.2 under Research Question 3. The study was designed with a separate sub-question relating to the role of leadership as a factor influencing the interaction between employees on a senior management level.

5.4.5. Conclusion on Research Question 1

During the course of the discussion, various factors were identified as influencing employee participation in the sensing, seizing and transforming activities of the organisation. The most prominent factors are diversity, organisational culture and the specific skills of individuals. It is concluded that a dynamic organisation is characterised by a people-orientated environment focused on the well-being and progression of its employees.

5.5 THEMATIC ANALYSIS RELATED TO RESEARCH QUESTION 2

The second sub-question is:

Which interpersonal factors influence the interactions between employees on the meso-level?

5.5.1 Influence of diversity on employee interactions

A wide range of opinions was forthcoming on whether diversity influences the interactions between colleagues. Some participants believed that diversity has a positive influence on the interactions, one participant thinks that diversity does not have any influence at all while only one participant indicated that they are uncertain as to its influence. For this discussion, the positive influence of diversity on employee interactions will be discussed. The focus of the discussion will be on specific factors that may have an influence.

The breakdown of diversity as a theme is set out in Figure 6.

a) The influence of age diversity

The influence of age diversity was raised by two participants from different employing organisations. Participant 4 viewed age diversity in a negative light:

"there's a certain generation and a much younger generation it's a struggle with these people. I don't know if they sort of feel entitled to respect in offices. They come into offices thinking that they get a salary, get a salary for absolutely doing

nothing. And that for me is a challenge. The older generation I find this easier to work with. And I know that sounds horrible, but there definitely is a gap for me between an older crowd like my kind of age, you know, over 40 and then these young generations that for me, is a bit of a struggle, but we managed around it."

This was contradicted by participant 10 who viewed age diversity in a positive light:

"So very diverse also from an age perspective. We have youngsters starting at 26 years old and then we have a lady that's doing programming that's 58 and one of the ladies that report to me it's turning 65. Now we've got a wide range of age gaps. Literally generational gaps. And it's amazing how the generations come together and work together and how they bring different strengths."

The age diversity and generational age gaps also influenced the interactions between employees and sharing of ideas and opinions. In a culture where every employee can voice their thoughts and contribute as they deem necessary, it was noted that:

".the youngsters are very focal. And so are the older generation. It's the middle that listens more and they do right. So first the outer aspects are very focal. I must say, the younger guys really respect the experience of the older people in the team. And the older ones realise that that they didn't keep up with all the latest things so they respect the knowledge of the youngsters, which they also don't have at this stage. So interactions and diversity really bring out each of the strengths of everyone and you need that in a team. If everyone is the same you'll never achieve right." (Participant 10).

It may be speculated that the contradiction in how age diversity is regarded within an organisation may be based on the overall company culture of the organisation and the leadership style of the executive management. It is expected that this principle will also ring true in the context of team culture.

b) Acknowledgement of diversity

The data suggest that diversity and the differences between individuals which it represents is an aspect that must be acknowledged on an organisational level but also between colleagues. These differences must be acknowledged on all employee levels –

irrespective of the individual's position in the company. Creating an environment of cohesion between colleagues can be a challenge as was noted by participant 4:

"Well, you've got people from all walks of life obviously you've got people from all different social and economical backgrounds. We've got all these different people in terms of cultural backgrounds, and bringing all these things together into one big organisation. It can sometimes be tricky. And you know people need to be aware of these things and I find that the younger crowd that you sometimes employ still have to go through the process of, of learning the skills of dealing with all these kinds of things because you're not you know, you don't learn these things at school. And then you come into an organisation and you deal with different personalities, different cultures, different age groups, and people sometimes struggle with that. So you have to be sensitive to those kinds of relationships and try and make them work."

The success of the organisation is dependent on the ability of individual employees to acknowledge their differences and find a collegial manner to work together in the best interest of the organisation. The importance of a company culture where employees feel valued and acknowledged was emphasised in paragraph 5.4.2. This is also directly related to how diversity is acknowledged and celebrated in an organisation.

Participant 10's colleague describes the culture of their employing organisation as firstly, one of acknowledging and celebrating diversity and secondly, one of inclusivity. In participant 13's words:

"No, I must say I think that one thing that I've personally found in our team is that everybody just actually gets on extremely well. Everybody respects each other. I think that we all recognise that we sort of come from different backgrounds, different educational levels, and different life experiences, but actually, the team works exceptionally well together. And I think that you know, there's also a lot of effort within the team to try and have sort of team building not necessarily named as such, but they will do sort of various celebratory events and things like that. Probably about two or three times a year. Like, Heritage Day was a big one. So the team really does try and make an effort and you know, I actually think that it's a very nice unified team, actually."

It is suggested that in organisations where there is collaborative leadership prioritising a culture of inclusivity, diversity will have a positive influence on employee interactions.

5.5.2 Team Culture

The influence of organisational culture has been discussed in the context of Research Question 1. The research participants were prompted to describe the culture which is prevalent within their teams. There are definite correlations between the overarching organisational culture and the specific team cultures.

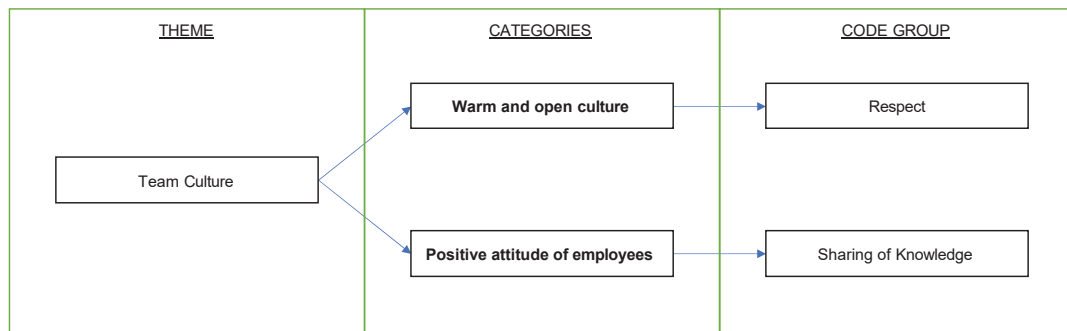


Figure 9: Breakdown of team culture as a theme (Student's own)

5.5.2.1 Warm, open culture and respect

There are two noteworthy similarities between the description of the overall organisational culture and team culture. Firstly, the perception of the team as a "close-knit family" with a "warm and open culture". Secondly, the flexibility afforded to individual team members in the execution of their responsibilities. Several participants noted the absence of micro-management:

"No one is afraid of how we work. We don't monitor you all the time as long as your work is done. And you following working times and guidelines, you know, if there's if you deliver when we don't micromanage you, that's the culture. You know, you just need to deliver but you need to be responsible enough to deliver."
(Participant 2)

The principle raised by participant 2 was supported by participant 3.

"So I treat my staff well, I don't, you know, I give them instructions. I allow them to do their work. I don't micromanage them. As long as the work gets done. If they

have any questions they can come to me at any time when it comes to my sites, if they have something that they need from me, I get on to them immediately because when I need something from them, they do exactly the same." (Participant 3)

Two of the key elements emphasised in terms of team culture are honesty and respect. Treating colleagues with respect, irrespective of their position in the organisation is of the utmost importance:

"I think the culture is one where we support engagement, working closely with each other collaborating, you know, there's a huge piece on the need for you to achieve a specific goal or an objective you have to be able to work together. So, you know, that the culture is one that prioritises working closely together. So there is a very, very good team culture. And also in terms of respect as well, you know, collegiality you know, all of those issues are some of the ones that I think the culture from our side. There is a form of trust and respect, diversity of thought, creativity and definitely confidence in what you're doing." (Participant 15)

"I think as long as you have a basis of honesty, coupled with respect you know, we both share each other's ideas. We don't take criticism badly like, you know, if we say "this project, I don't think this thing would work" and we disagree, but there's a bit of respect and we value each other's views. Yeah, I think we work well because of that. Because of openness and honesty and transparency, works better. no one gets offended." (Participant 14)

"I've also learned that being friends and being respectful to everybody irrespective of who you are, brings good outputs. And I find that if I have to get something done urgently. I'll always get it done because if somebody needs that from me, I do it for them. So respect everyone, irrespective of who you are. If I get on the lift and XX is there I will greet him the same way as I will if I get into the lift and XX is there. We are all humans, we are just on a different part of the tree, You know this tree we all have different branches end of the story but with respect for your peers and your gifts, you will get good outputs from them." (Participant 3")

5.5.2.2. Positive attitude of employees and the sharing of knowledge

Within a team culture context, the attitude of the individual team members is fundamental to the operation of the team. The right attitude cannot be taught and is more critical than technical skills:

"So I'd rather work with someone that has the right attitude and ethos and employ someone like that because I can always teach you the technical stuff over a year or two years." (Participant 1)

"The other thing is that the organisation has got solid, qualified employees at the critical functions. So there are certain functions within the organisation that I personally believe that we have people with the right skills and with the right attitude. So that alone can bring about success, I believe, for the organisation and I believe it's also where the organisation is strong because of the kind of employees that they recruit for a very critical position." (Participant 11)

"They are hard workers. And the majority are team players and they've just got a positive energy which makes it easier to work with them to actually get the work done because you know, finance is a difficult department to be we are deadline driven. And it gets the pressure is a lot and to keep people around and not lose them constantly is it's a challenge. So that positive energy that you can draw from the other team and what other team members can draw from each other. It makes a big difference. It makes a big difference in keeping them happy and motivated." (Participant 4)

Where employees with the correct attitude have been appointed, the sharing of information will increase the knowledge base of the whole team and is critical to the success of the team:

"I think we practice just laying everything done on the platform. We thrive on sharing our knowledge... I think we've also I've at least wanted to develop growth within all my teams. My you know, even for me, I always tell the senior guys like you need to work me out of a job. You know, I shouldn't be insecure about not having to share information just because I'm insecure. You know, growth needs to happen for each and every single one." (Participant 1)

"I think that's the only way that we can succeed. You know this is not a competition. We're all working towards one. One goal. And for us to achieve that, you know, we all need to kind of be on the same page. So you don't gain anything from being you know, you don't gain anything from not you know, sharing. The team overall is better off if we do have the opportunity to do so, but I think that's really key. You know, having the opportunity and listening, not just kind of hearing people but actually listening and taking in some of those ideas that come from all directions, I think. So yeah, I feel that it's the only way sharing is only way sharing ideas and information is the only way that the team can succeed." (Participant 8)

5.5.3 Conclusion of Research Question 2

Diversity and team culture have a significant influence on the interactions between colleagues on a senior management level. From the discussion, it is evident that it is pivotal to acknowledge the prevailing differences between colleagues, whether it is cultural, religious, or otherwise. A fundamental building block in maintaining relationships is mutual respect without which it will be impossible to build effective working relationships.

5.6 THEMATIC ANALYSIS RELATED TO RESEARCH QUESTION 3

The third and last research question is:

What is the effect of interaction with the organisational leadership, if any?

5.6.1 Leadership

Leadership, in a broad sense, was one of the key themes emerging from the inductive analysis of the data. Leadership was raised in the context of an important individual skill, the leadership of the organisation as well as the specific characterisation of organisational leadership to name a few. Both positive and negative aspects of leadership were raised:

"In terms of this, there is a form of trust and respect, diversity of thought, creativity and definitely confidence in what you're doing, and also one of the other things so for example, with my line manager, when I was busy mentoring with one of

our counsellors, he was mentoring me but there was also that level of reverse mentoring as well." (Participant 15)

"I do think that I have good leadership skills. I don't necessarily have a particularly aggressive leadership style. But I think that I lead my team well, and I think that they're responding to my style." (Participant 13)

"So you know, in terms of growing and making sure that we are an established organisation that for me is important, but I don't you know, I can't even say communication is a good characteristic because communication doesn't always happen. It lacks a lot of times, I'm just thinking what else? I think they committed they're definitely committed to the research partners and donors to try and also make everything work well." (Participant 4)

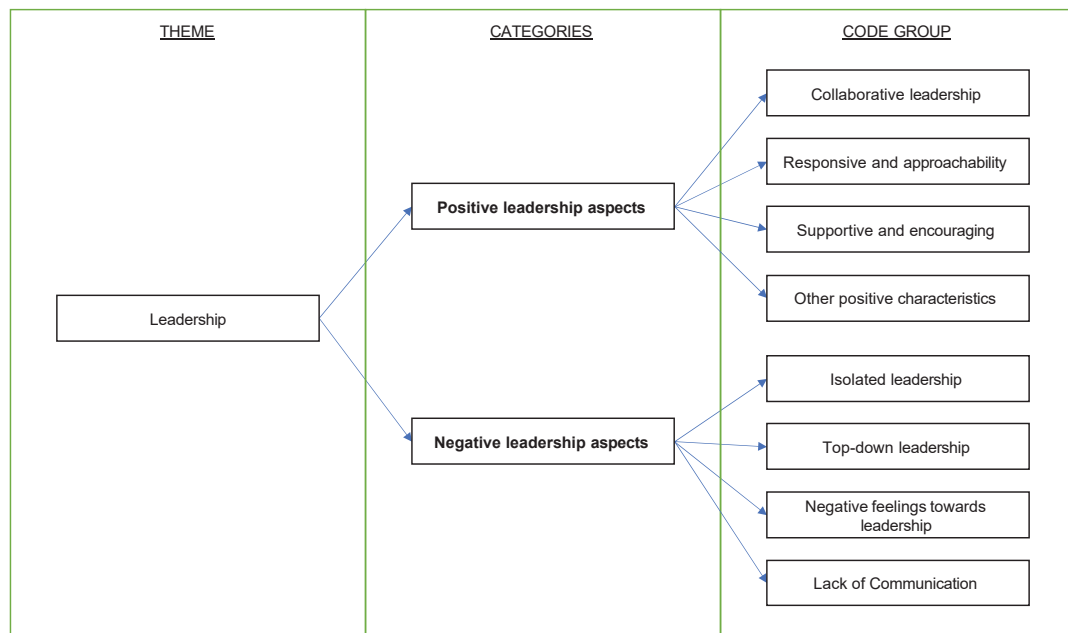


Figure 10: Breakdown of leadership as a theme (Student's own)

For Research Question 3, leadership will be discussed in conjunction with the effect of interactions between employees and management. The positive and negative aspects of leadership will be explored. The influence of leadership concerning Research Question 1 and Research Question 3 overlaps to some degree and it can be argued that this is indicative of the critical role that leaders play in the establishment of dynamic capabilities.

5.6.1.1 Positive Leadership Aspects

The positive influence of leadership was noted by 10 participants across both participant groups. During the coding process, positive leadership aspects were divided into four codes: collaborative leadership; responsive and approachable leadership; supportive and encouraging leadership and other positive characteristics.

Participants from the medical and health-related research industry noted the supporting and collaborative nature of the organisation's leadership. Participant 8 noted a consensus-based approach:

"Very collaborative. Very so the first is, I think, very engaging and very collaborative. And you know, kind of consensus, they have this consensus-seeking approach. Okay. That's pretty much it."

This is supported by the view of participants 10 and 12, employed in a different research organisation than participant 8:

".historically, we had a different way of management were not being managed by, you know, a CEO, an MD and those types of things. Where originally it was more the founders, I think their passion came through that also had, you know, very strict views of how things should have happened to us, but they've been moved out of the operational part of the business really. So EXCO and the CEO and that type of level, I think got a very strategic view of where they want to go and they focus all their efforts to meet the strategy. So setting that vision and making sure they meet it. And their management style is the opposite of autocratic. And they got a very collaborative leadership style and also depends on whom you work with. So if that is the CTO, he's got a very warm family-focused type of style, where MD comes from a very big consulting firm as well. So a little bit more focused on business and less on family matters." (Participant 10)

"And I would say it is very, it is collaborative. And it definitely is an innovative and learning environment in which we're trying things all the time that are pretty new. And we don't always know how they're going to end up or what they're going to what the result is going to be." (Participant 12)

Participant 15, from the non-medical and non-health related group, underscores the notion of collaboration by stating:

"I think the culture is one where we support engagement, working closely with each other collaborating, you know, there's a huge piece on the need for you to achieve a specific goal or an objective you have to be able to work together. So, you know, that the culture is one that prioritises working closely together."

Some much-needed context and perspective on collaborative leadership were provided by participant 12. Participant 12 explained the synergy between collaborative leadership and the responsibility of leadership to take directive and strategic action to ensure the continued growth and strategic direction of the organisations:

"... at times, it is very collaborative but there have been a few occasions where it's tended to be more. What is the opposite of collaborative, like directive, where you felt well, maybe they could have discussed that a little bit more before making that decision. I do think that from a strategy perspective, it always comes out very clear what the thinking is and what the objectives are, what the short and medium- and long-term objectives are. So that I think is pretty good. And we've always got very good direction in terms of which I can then interpret and then help kind of create the product roadmap that aligns very closely to that strategy. So that I think is very good. direction. And I do think the communication is pretty open and honest."

In addition to being collaborative, leadership has also been described as responsive, approachable, encouraging, committed and supportive:

"I think they committed they're definitely committed to the research partners and donors to try and also make everything work well. So I think that might be something that I can say is, is a good characteristic." (Participant 4)

"Very supportive, very open. So there's regular communications, this q&a where staff can directly ask questions to even the CEO so I would definitely say there's a lot of open communication to staff." (Participant 11)

"She's very supportive. And I mean, she definitely I think she sees more kind of success in all of us than we see for ourselves, you know, she's actually I mean,

she really does push people into, like really tries to promote people as much as she can." (Participant 13)

". are approachable. If we need something like legal we'll go to the legal department, and they respond, we go to finance they respond. Their very responsive leadership, even right up to the CEO, very responsive, which is great. That's a good culture." (Participant 8)

Various other positive attributes have been mentioned contributing to a rich description of an effective leadership style contributing to the success of individual employees as well as the overall organisation.

5.6.1.2 Negative Leadership Aspects

In stark contrast to the positive leadership elements noted by several participants, various comments were raised regarding negative leadership. Feelings of disconnection, as well as a lack of respect, were noted:

"Oh, it's not good. The CEO is not dynamic. He doesn't have any drive. And I think it's because ...he's been set up now. Where he is fantastic is he thinks out of the box and he's dynamic and he comes up with these amazing ideas. And he's grown the organisation so much. But as a CEO for a person to look up to say I want to be like you. It's not like that dynamic. I mean, my father as a CA was someone I always aspired to be and wanted to be because he was dynamic. He was resourceful and people looked up to him and respected him." (Participant 6)

"And that's, and that's about, you know, well, not even before that, it just I just feel very disconnected. But I think that become that because of the size of our company." (Participant 3)

5.6.1.3 Conclusion on Leadership

Through the juxtaposition of positive and negative comments regarding leadership, it can be argued that the participants' perceptions regarding leadership are subjective and dependent on both their positions in the organisation and their specific reporting line. As

an example, participants employed by the same organisation have the following dissenting views regarding the overall leadership:

Participants 1, 3 and 4 hold a negative view of leadership:

"I think I think it's isolated. I think there could be a lot more communication from executive structures, in terms of the strategic requirement and outcome for the business to allow the senior management to implement with a lot more clarity. I don't think there's clarity. But again, I think that's the engagement or the lack of engagement from the executive." (Participant 1)

"I can give you one word and that is absent, I find them there's no interaction. So they're very elusive. They are very on their own, absent, and disconnected. Not a very positive comment." (Participant 3)

"Gosh, are they even they, you know, you know, of all these people, but do you ever see them? If I think of, you know, just a person that starts within whichever department, I think maybe if they're based on the fourth floor, the chances of them seeing somebody is, is better, but you know, of all these people, but you don't see them. So for me, I think that leadership style is just absent. I think the organisation can do more from the site to make themselves visible so that people actually know and be more approachable." (Participant 4)

In contrast, participants 2, 5 and 8 noted:

"And I would say from the leaders that I work with, are very supportive, encouraging. They provide guidance all the time. So it's more supportive from my side." (Participant 2)

"I will say, from certain aspects from certain the leadership style will be more maybe I will say on a coaching leadership style. Trying to maybe nurture maybe strengthen, strengthening each team member and working with them to improve the quality of outcomes." (Participant 5)

"Very collaborative. Very so the first is, I think, very engaging and very collaborative. And you know, kind of consensus, they have this consensus-seeking approach. Okay. That's pretty much it." (Participant 8)

This may support an argument that an inner circle exists involving individuals on the executive team as well as senior managers. However, despite the contrasting view on leadership within one organisation, the data suggest that collaborative executive leadership, supportive and encouraging of their direct reports, has a positive influence on the overall performance of said direct reports.

From the interview data, collaborative leadership are evidenced by leadership who are open to the input and opinions of senior-level employees. This aspect will be explored more fully concerning the effect of interactions between senior-level employees and their direct reporting line.

It is prudent to marry the notion of collaborative leadership with the insight provided by participant 12. In some instances, collaborative leadership requires some direct and strategic decisions and actions by the executive management which may not always provide the opportunity to engage fully with direct reports on a senior management level.

5.6.2 Interactions with management

Participants were requested to describe their interactions with management in their reporting line. Question 5 in the interview guide specifically focused on this aspect. For this section, 2 aspects will be discussed: aspects related to the specific reporting line and the lack of clarity in communications.

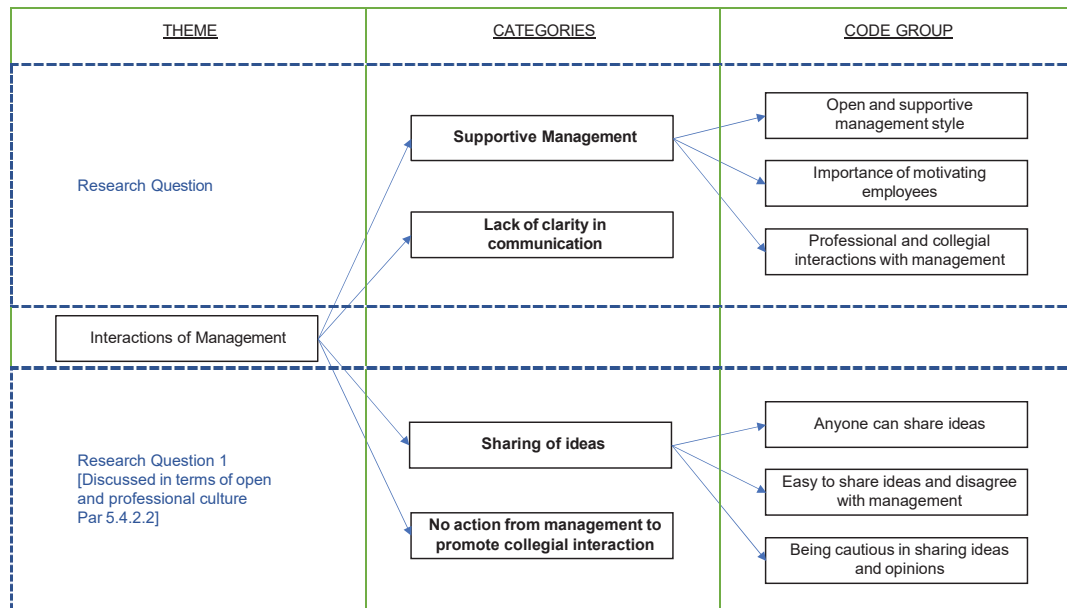


Figure 11: Breakdown of interaction with management as a theme (Student's own)

3.6.2.1 Supportive management

A wide variety of descriptions have been attributed to the interactions with management: from friendly to professional and collegial.

"I think definitely friendly. there's a joke often is that laughter is generally just friendly.." (Participant 12)

"So from that perspective, I think I've got some good relationships and I mean, XX, and I get on very well be friendly and we chat. But there's a group, I don't even know what three words I could give I suppose at the end of the day, it's professional. It's respectful and collegial." (Participant 6)

It is suggested that interactions between senior-level employees and their direct managers that are conducive to a successful working relationship are characterised by a supportive manager with an open and flexible management style. Participants 2, 11 and 15 support this statement:

"Open Door Policy. No micromanaging. And free to discuss any concerns." (Participant 2)

"Communication and support. Support your team, so that they can also support you." (Participant 11)

"Very supportive, very open. So there's regular communication, this q&a where staff can directly ask questions to even the CEO so I would definitely say there's a lot of open communication to staff." (Participant 11)

"Every Thursday he's got an open-door session that he does every afternoon where if you want to go and chat with him about anything, something you are happy about something that you're not happy about, his door is open. And other senior members of the executives are actually following suit so that at least people feel free and not afraid of their leadership if that makes sense." (Participant 15)

Interestingly to note, participant 3 noted confidence as a factor that influences an individual's interaction with management. This was noted in the context of engaging with your direct report as well as sharing your ideas and dissenting opinions as well as on behalf of others:

"I think so. And I think also it depends on your, your, your confidence, you know, if you are not confident to approach something with your superior, you're not going to and it's not because you're superior is anything to do with it. It's just your confidence. Maybe."

The interactions of management have a significant influence on how their direct reports approach them and share ideas with them. Isolated, absent and unapproachable leadership leads to severe feelings of disappointment directed towards management and leads to employees acting in self-interest:

"So for my side, yes, I give XX all the reports he needs. I try and cover all bases for him when I think anything is a query or concern. I constantly send emails but what I don't get from him is he never responds to emails. He never has my meetings he when we ever meet, he cuts me short. He always moves my meetings out. I don't feel that I get support from him at all. whenever needed. I had to hunt him down and beg him. And then finally he'll come and find out what it is that I needed. I mean, once I picked up a huge, broad issue, and I raised it with him and you could see I was upset and concerned about it. And he took

a couple of days and that's all fine. If that's how you want to behave. And you don't want to take this seriously then there's nothing I can do. So I've learned that over the two to three years working with him is that I'll give him the information if he doesn't respond, then there's nothing I can do. I just wait, but I make sure I report it to have me covered." (Participant 6)

3.6.2.2 Lack of clarity of communication

Throughout the data analysis process, several participants mentioned that interacting with management, there is an open-door policy in place that facilitates collegial and productive interactions between the parties. It should not be assumed that these interactions are accompanied by clear and concise communication.

Participant 1 voiced the lack of clarity around communications, whether it is regarding operational aspects or implementation of strategic decisions as follows:

"I think there should there could be a lot more communication from executive structures, in terms of the strategical requirement and outcome for the business to allow the senior management to implement with a lot more clarity. I don't think there's clarity. I think at the moment senior management certainly has to put themselves in a position to try and understand what it is the business wants. And I think that's where we are fortunate with is that we don't have sheep as management. Sorry to put it that way. But we do have managers that are loyal, honest, trustworthy, hardworking people that really go out of their way to ensure that they try and understand the business and try and meet the gaps that they might not get from leadership. I think there is a massive gap between leadership and senior management."

and

"So there's not much engagement. I think it's more instructional-based. And that's Yeah, I think that's probably the biggest thing, and then also just the miscommunication and maybe misunderstanding that is coming from the top. But again, I think that's the engagement or the lack of engagement from the executive."

One organisation, being the employing institution of some of the participants has grown considerably over the last couple of years to the extent that the "*organisation has grown so big that I think we are getting to a point where it's so administrative heavy*". This was noted by participant 6 who further noted "*that it I think that we're not doing well in that aspect communication is not good and there's just this administration aspect which weighs down heavily on people which actually hinders them from getting the actual work done.*"

The concerns raised regarding the lack of clarity in communication were only raised by one set of participants, all employed by the same organisation. In the absence of any other concerns raised by participants employed by other organisations, it is inferred that a leadership problem, in isolation or conjunction with a communication problem, exists within this specific organisation. This concern must be noted with the caveat that it can not be applied across the grant-research industry across the board and may only be organisation specific.

3.6.2.3 Conclusion on interaction with management

The collegial interaction and personal support provided to senior-level management are key aspects influencing the performance and willingness of the individuals to engage with their managers.

5.7 CONCLUSION

During the course of the discussion, various factors were identified as influencing employee participation in the sensing, seizing and transforming activities of the organisation. The most prominent factors are diversity, organisational culture and the specific skills of individuals. It is concluded that a dynamic organisation is characterised by a people-orientated environment focused on the well-being and progression of its employees.

The data suggest that diversity is one of the key factors influencing meso-level dynamic capabilities. Diversity influences the employment contingent, diversity of skills and the engagements between colleagues and management. Diversity (whether it is in terms of race, age, or abilities) creates an opportunity for the organisation to identify the strengths and weaknesses of their employees.

It is evident that the prevailing culture in an organisation is critical to the success of individual employees as well as the organisation on a macro level. The various elements of a supportive environment and professional and open culture were discussed and the influence of leadership was noted.

CHAPTER 6 DISCUSSION

6.1 INTRODUCTION

Chapter 6 discuss the findings of the research as set out in Chapter 5, in relation to the exposition of the applicable literature in Chapter 2. The findings will be compared to the literary principles with conclusions made as to any similarities and contradictions. The same format will be followed as in Chapter 5 in that the discussion will be structured according to the research questions.

6.2 RESEARCH QUESTION 1

What are the inherent factors influencing employee participation in the sensing, seizing and transformation of dynamic capabilities?

6.2.1 Introduction to Research Question 1

As explored in Chapter 2, dynamic capabilities can be divided into three categories of micro-foundations. These categories are a) the capability to sense new opportunities, existing and potential threats, b) the capability to seize opportunities through the allocation of resources to support developing opportunities and making investments, and lastly c) the capability to maintain competitiveness through the transformation and reconfiguration of resources, assets, capabilities and renewal of business activities (Helfat & Martin, 2015; Teece, 2007; Teece et al., 2016). The development of these capabilities is critical to the survival of the organisation.

Research Question 1 aims to understand the participation of senior-level employees in the organisation's sensing, seizing and transforming processes and, more specifically, the factors influencing the participation. Literature indicated that executive management's responsibility is to assist the organisation in developing dynamic capabilities (Harreld 2007). This aspect will be discussed under Research Question 3.

6.2.2 Microfoundations of Dynamic Capabilities and Dynamic Managerial Capabilities

Sensing is the iterative process of "scanning, creation, learning and interpretive activity" (Teece, 2007, p. 1322) and the detection of "weak signals in the broader marketplace, including government regulations, technological developments, economic trends and

socio-political currents" (Schoemaker et al., 2018, p. 20). Individuals seize opportunities by integrating "new ideas and knowledge with the firm's existing capabilities, which is instrumental for success in product sequencing, transforming an organisations resource base by "identifying new technologies, product applications, and competency combinations" (Correa et al., 2019; Kor & Mesko, 2013, pp. 233-234).

The various definitions of DCF are explored in Chapter 2 with the key similarity and theme across the definitions being that dynamic capabilities are seen as a repetitive process of intentional and focused action which leads to the renewal of existing resources or the creation of new competencies. This common theme fails to take into account the contribution of individuals, whether it is on an executive level or meso-level, in the creation of organisational-level dynamic capabilities (Salvato & Vassolo, 2018).

A further concern with this view is that interpreting dynamic capabilities strictly as routines minimises the participation of individuals by curbing their creativity, independent thinking and decision-making capabilities (Salvato & Vassolo, 2018, p. 1729). An organisation requires a combination of the dependability of routines and the creativity of individuals to transform and reconfigure resources continuously (Salvato & Vassolo, 2018). It is also Salvato and Vassolo (2018) who introduced a further principle to the framework by introducing a meso-level to dynamic capabilities. The meso-level encapsulates the relationships and interpersonal interactions between employees and is the proposed missing link in exploring how individual-level dynamic capabilities (micro-level) lead to the establishment of organisational-level (macro-level) dynamic capabilities (Salvato & Vassolo, 2018).

The ability of the leadership team, or senior management for that matter, to sense change, seize opportunities and transform the organisation is critical to organisational-level dynamic capabilities and the transformation of the organisation itself (Schoemaker et al., 2018). This can be deduced from the fact that managers, including senior managers, act as agents of change in the sensing, seizing and transforming activities of the organisation (Correa et al., 2019; Kor & Mesko, 2013, pp. 233-234).

The collective skills of individual employees are required in the establishment of organisational-level dynamic capabilities, especially in the pursuit of innovation, novel business models and strategic leadership (Schoemaker et al., 2018, p. 16). Sensing and seizing activities can also not take place in isolation (Nonaka et al., 2016). It is argued that an organisation will not be able to leverage the collective skills of its employees

without an organisational and individual team culture conducive to the sharing of opinions and ideas within the team and individual reporting lines. This further relates to an individual's decision-making capacity as eluded to by Salvato and Vassallo (2018). Thus it can be surmised that organisational culture influences the participation of employees in organisational activities relating to the micro-foundations of dynamic capabilities. Organisational culture is one of the themes discussed in relation to Research Question 1.

DCF is argued to be an extension of the RBT framework which identified organisational resources to include physical capital resources, human capital resources and organisational capital resources (Barney, 1991, p. 101). Human capital resources intricately link with the managerial human capital which is a core element of dynamic managerial capabilities ("DMC") (Adner & Helfat, 2003; Helfat & Martin, 2015; Li et al., 2018; Schilke et al., 2018). DMC is defined as "capabilities that managers build, integrate and reconfigure organisational resources and competencies (2003, p. 1012; Helfat & Martin, 2015; Huy & Zott, 2019; Kor & Mesko, 2013; Li et al., 2018).

Human capital resources in terms of RBT has been identified to include the "training, experience, judgment, intelligence, relationships and insight of individual managers and workers" (Barney, 1991, p. 101). Interpersonal relationships and leadership have also been identified as human capital resources on a micro-level and, relationships between organisational units or groups and company culture as organisational resources on a macro-level (Gibson et al., 2021). On the other hand, managerial human capital is defined as the "learned skills that require some investment in education, training or learning" which includes professional work experience, skills, knowledge education and on-the-job training (Kor & Mesko, 2013; Li et al., 2018). It is evident that the frameworks of dynamic capabilities, resource-based theory and dynamic managerial capabilities are closely interwoven with similar concepts overlapping.

Closely linked to the micro-foundation of transforming and reconfiguring an organisation's research base, is a decentralised decision-making process. Decentralised decision-making enables different decision-makers to make independent decisions based on the information available to them. This is done independently of the need to report to a single decision-maker which improves the dexterity and responsiveness of the organisation (Teece, 2007). Having flexibility in the decision-making process will be discussed in terms of organisational culture and team culture.

6.2.3 Factors influencing employee participation in the sensing, seizing and transforming activities

6.2.3.1 Diversity

During the interviews, various participants raised the issue of diversity describing their employing institutions as organisations with a high level of diversity. Diversity as a theme was divided into two categories: diversity within the organisation and secondly, the influence of diversity on employee interactions. As noted in Chapter 5, diversity plays a pivotal role in the South African community and as participant 9 described, "*diversity plays a kind of central core to everything that*" the organisation does. It is proposed that a high level of diversity is to be expected in successful organisations within the South African context. Diversity is central to the staff complement, engagement between colleagues as well as engagement with external parties. As such it can be argued that diversity will influence the participation of employees in the sensing and seizing activities of the organisation.

Different aspects of diversity were raised by the participants concerning Research Question 1: the level of diversity in the organisation, gender and age diversity, race diversity and bias and diversity in technical skills and thoughts. The overall inference that could be drawn from the findings in Chapter 5 is that diversity is influenced by the industry itself as well as the type of services provided and goods delivered by individual employees.

The locality of a project or organisation is another factor affecting the diversity in an organisation: where and in which region services are provided will have an effect as raised by participant 8 "*if you have a project being implemented in the Eastern Cape, you predominantly have Xhosas being represented in those projects*". This may be attributed to the disparity in the traditional male and female-orientated professions and fields of study. It is postulated that race and gender disparities will have an effect on the overall influence of diversity within the organisation and more specifically the managerial human capital and managerial cognition within the organisation.

The importance of diversity in technical skills is evident from the data findings. The diversity in technical skills is reflected in several ways, one being the ability to speak a third or fourth language. Participant 6 noted the positive impact by stating that it is necessary to identify "*where the strengths are with your team and as to where you can*

use them". Technical and education diversity presents the organisation with the opportunity to rely on the individual strengths and capabilities of its employees for the ultimate benefit of the organisation. This view was supported by participant 3:

"We all perform differently. We all have our expertise, and we all have our weaknesses. And it's about honing in on people's strengths and not on their weaknesses. You know, we all have weaknesses for a reason, because then it makes our strengths shine. You know you don't have to keep hounding people to be stronger. It's something that they. it's not who they are. So, our culture has to you have to adapt to what's in your surroundings."

It is argued that the diversity in technical skills and educational background from part of the human capital resources as defined by Barney (1991) and managerial human capital (Kor & Mesko, 2013; Li et al., 2018). Technical diversity includes employees' historic work experiences and Helfat and Martin opine that managers with historic experience in evolving markets and organisations, develop knowledge structures which can be applied in different settings (2015, p. 1286). In terms thereof, employees' work experience, irrespective of whether it is in the grant-funded research industry, will increase their technical diversity which will add to the human capital resources within the organisation. This was noted by Participant 10 as follows:

"So, we have a very open policy whenever we discuss things and I think people also know when to say what in which forums, but in general, you can really open your mind and contribute as much or as little as you want. It's and I find the youngsters are very focal. And so are the older generation. It's the middle that listens more and they do right. So first the outer aspects are very focal. I must say, the younger guys really respect the experience of the older people in the team. And the older ones realise that that they didn't keep up with all the latest things so they respect the knowledge of the youngsters, which they also don't have at this stage. So interactions and diversity really bring out each of the strengths of everyone and you need that in a team. If everyone is the same you'll never achieve right."

The influence of diversity on the social interactions between colleagues and managerial social capital within the organisation cannot be disregarded and will be discussed in terms of Research Question 2.

6.2.3.2 Organisational Culture

Various participants raised the importance of an organisational culture with a focus on the best interest of the employees. During the interviews, two elements were highlighted by the participants namely a people-orientated culture and a professional and open culture. Various factors play a role in these two elements.

Emphasis was placed on the importance of inclusivity and recognising an employee as an individual, and more specifically also as an individual with a family and responsibilities outside of the work environment. This is not only applicable to the organisational culture but also the prevailing culture within a specific team. Participant 11 noted the importance of being attentive to the well-being of direct reports by stating "*it's also being human and recognising that before you are an employee, you're also a person. So I prefer I always try whenever I engage with even my teams to really check on their well-being before the work .*".

The supportive working environment created by a sincere interest in the well-being of employees is also characterised by an understanding that an employee, like all individuals, has a limited amount of time available. An incident was described illustrating the respect for the limited time available to an individual where the agreement to assist with additional work may lead to the consequence of less time available for personal and family responsibilities. Respect for a colleague's time is intricately linked to a concern for their well-being and the creation of a supportive working environment. This aspect is dependent on engagements with a manager in a specific reporting line.

The inference made is that there is a form of symbiosis between a positive organisational culture and managerial social capital. It can be argued that placing the focus on an employee as an individual creates a social connection between the employee and manager, or between colleagues within the same team context, which is beneficial to the organisation as a whole. Social capital is critical to an organisation's dynamic capabilities and more specifically to the micro-foundation of transformation. An organisation will be restricted in transforming and reconfiguring its asset base without the social capital of its employees (Helfat & Peteraf, 2015). As participant 11 noted that "*you get more out of a person that feels that you really care about who they are as people before you start engaging with them in terms of what you're expecting from them in terms of work*". Social interaction and engagement between employees also contribute towards a supportive working environment. Several participants are supportive of this statement and noted the

importance of maintaining a balance of when to be involved in their capacity as managers as opposed to a more personal approach. Social interactions can be initiated at a team level or by the organisation as a whole.

The second element of organisational culture noted by the participants was a professional and open culture. Insights gained from the participants indicated that interactions with colleagues and their managers play a primary role in creating a professional and open culture where employees can be valued. The importance of employees being acknowledged and feeling heard was highlighted. This was further argued that a professional and open organisational culture will lead to different work capabilities and strengths of individuals coming to the fore which ultimately benefits the organisation.

Integral to a professional and open culture are the core attributes of an open-door policy and an environment conducive to the sharing of ideas. It is argued that this is beneficial to unlocking the strengths of each individual and increasing the productivity of the team as the interactions that individuals have on a personal and professional basis influence the managerial cognition of the individual (Kor & Mesko, 2013, p. 234). An open-door policy has the further benefit of creating space for social interactions within the organisational context which provides opportunities for the sharing of knowledge and information - a key aspect concerning managerial human capital and managerial cognition.

A further inference can be made that an element of trust is also involved as a professional and open organisational culture affords a level of accountability and flexibility to employees to perform their duties autonomously. This inference bears a similarity to a decentralised decision-making process which is integral to the transforming and reconfiguring process. A decentralised decision-making process enables different decision-makers to make independent decisions based on the information available to them. This aids in the employee's accountable, productive and autonomous work performance and improves the dexterity and responsiveness of the organisation (D. Teece, 2007). Teece notes that an organisation that has been structured on a multi-divisional basis strengthen the delegation of authority to make decisions achieving "greater accountability of managerial decisions so that the recognition of opportunities and threats could proceed more thoroughly and expeditiously" (Teece, 2007, p. 1336). Integral to this is the ability to generate learning and knowledge management capabilities within the organisation (Teece, 2007).

According to Helfat and Peteraf (2015) social cognitive capabilities include the ability to understand the point of view of others. Understanding the opinions and points of view of colleagues provides an opportunity to influence their opinions and behaviours. The executive leadership team can utilise this ability to influence the senior management team, as well as other employees to foster cooperation which is related to the inherent trust between colleagues (Helfat & Peteraf, 2015, p. 844).

6.2.3.3 Individual skills

Managers have differentiating skills and knowledge which are of general application or inherent to a specific industry or organisation (Adner & Helfat, 2003; Helfat & Martin, 2015; Kor & Mesko, 2013; Li et al., 2018). Differentiated managerial skills and knowledge influence an individual's absorptive capacity to interpret information as well as any emerging threats and opportunities (Helfat & Martin, 2015).

Two factors influence the identification of new business opportunities by an organisation: level of access to existing information and secondly, new knowledge combined with new information can create new opportunities (Teece, 2007). As discussed in Chapter 2, the micro-foundation of sensing can vest either at an individual level or in organisational processes. For an individual to participate in the sensing activities of the organisation, the individual will require access to information and the ability to identify and influence any opportunities and developments (Teece, 2007). The individual's ability to identify new opportunities is determined by their capabilities (creativity, understanding of the decision-making process as well as practical wisdom) and existing knowledge (Nonaka & Toyama, 2007; Teece, 2007).

The act of sensing new business opportunities and threats to the organisation must be concluded before the opportunities and threats become a reality (Helfat & Peteraf, 2015). The ability of an individual senior manager to participate in sensing activities requires different managerial cognitive abilities including "perception and attention" (Helfat & Peteraf, 2015, p. 838). It can be argued that these abilities are dependent on the skillset and human capital of the individual. Managerial cognition encompasses the inherent decision-making framework of an individual comprising their "personal beliefs and mental modes for decision-making" (Adner & Helfat, 2003; Li et al., 2018, p. 1132), emotions and knowledge structures (Helfat & Martin, 2015).

The human capital and cognitive capabilities such as personal beliefs, emotional awareness and regulation, language, communication knowledge perception, decision-making, absorptive capacity, problem-solving, reasoning and attention (Adner & Helfat, 2003; Helfat & Peteraf, 2015; Li et al., 2018) are influenced by the continuous development of skills and knowledge about the industry. The cognitive skills of perception and attention are specifically important to seize new opportunities (Helfat & Peteraf, 2015).

It is inferred that perception will positively benefit from a rich technical diversity as perception involved "the construction of useful and meaningful information about a particular environment" in terms whereof historic work experience and knowledge influence future experiences (Helfat & Peteraf, 2015, p. 838). It can further be argued that attention as a cognitive skill will also benefit from technical diversity as attention determines which external stimuli are reacted to which may be influenced by existing knowledge and previous experience (Helfat & Peteraf, 2015). Individuals who lack managerial cognition will fail to recognise and interpret external stimuli and market changes which will be to the detriment of their organisation's transformation endeavours (Helfat & Martin, 2015; Li et al., 2018).

Adner et al. (2003) believe that the cognitive base for the decision-making framework is a combination of comprehension of current events, knowledge and predictions regarding the future. This will include any consideration of alternative decisions as well as consequences (Adner & Helfat, 2003; Li et al., 2018). The data suggest that successful organisations in the industry are characterised by highly motivated and exceptionally educated individuals with a self-drive and ambition to improve their skills and knowledge. This is evident from the diversity of the educational background and qualifications of the participants.

As already mentioned, at least two factors play a role in employee participation in the micro-foundation activities of an organisation: level of access to existing information and the combination of knowledge and information to create new opportunities. Several elements are forthcoming from the data findings that speak to these factors. In terms of this discussion, individual skills used in the exercising of work duties and individual skills involved in the improvement of capabilities are applicable.

Skills involved in the improvement of capabilities are applicable can be divided between the self-drive of the individuals to improve themselves and sourcing information by

keeping up to date with industry developments. The inherent drive and motivation to keep on learning and improving their capabilities were present in most of the participants. One way to improve skills and increase knowledge is through ongoing training: internal training provided by the organisation or funder-specific training. Another is through pursuing further tertiary education in the form of further degrees or post-graduate degrees.

Despite the focus on technical skills and the importance of educational background, the response from the participants indicated that they consider their soft skills as their most important skillset. Included in this skillset are attention to detail, problem-solving, maintaining authentic relationships, the ability to unite people, the ability to listen to people and respecting people. Many of these skills, such as the ability to unite people, include a measure of influence which, it is argued, is a consequence of authentic relationships. Good communication is key to the skills of individuals. This includes the ability to effectively communicate in a professional environment comprises two elements: the ability to listen and the ability to express ideas or opinions clearly and in a collegial manner.

For the grant-funded research industry, it is critical to be aware of any new developments or additional requirements being introduced by the Funders on an individual and organisational level. Participants are meeting this requirement by subscribing to various communication platforms including education platforms such as Harvard Business Review and relevant industry newsletters and information platforms. Participation in industry advisory bodies was also raised with the participants.

The self-drive to improve as well as the requirement to be continuously informed of funder requirements can be achieved in various ways one of which is for the organisation or individual to be part of industry advisory bodies. No information or evidence was forthcoming from the participants to indicate that their employing organisations form part of any industry advisory boards or "think tanks". On an individual level, the participants indicated that there are individuals within the organisations that are involved in advisory boards and international industry committees and boards. These individuals who form part of such bodies are part of the executive leadership level within the organisation:

6.2.3. Conclusion To Research Question 1

It is concluded that race and gender disparities will affect the overall influence of diversity within the organisation and more specifically the managerial human capital and managerial cognition within the organisation. Managers with diverse managerial cognition present diverse benefits to the organisation (Helfat & Peteraf, 2015). Different managers with different backgrounds in terms of knowledge, experience and skills will respond differently in acquiring information, recognising opportunities, and reconfiguring resources. The research findings further support the notion that a diversified team of managers with complementary knowledge, experience, and skills are more likely to succeed in recognising and seizing opportunities and reconfiguring organisational resources, capabilities and structure, facilitating digital transformation (Li et al., 2018, p. 1132).

The literature indicates that social and personal relationships, technical skills and knowledge as well as the manner of thinking of an individual are critical to individual dynamic managerial capabilities. Inevitably this will influence organisational-level dynamic capabilities. The complementarities of the differentiated human capital of individual team members may positively influence the organisation's performance (Helfat & Martin, 2015). This is evident in the diverse group of participants and their diverse range of qualifications.

It must be noted that not one participant noted a negative view or negative influence of diversity within the organisation: neither in terms of the sensing and seizing capabilities of individuals nor in the social interactions between colleagues. The inverse rings true, diversity has a positive influence on skills development and knowledge sharing within an organisation. The insights shared by participant 10 regarding age diversity are evidence of this suggestion. Different age groups bring different skills and knowledge to the table which creates an environment conducive to learning and knowledge sharing. In participant 10's words, it is this diversity that will enable an organisation to achieve success: "*so interactions and diversity really bring out each of the strengths of everyone and you need that in a team. If everyone is the same you'll never achieve right*".

The data findings regarding the critical importance of diversity in technical skills, educational background, managerial human capital and managerial support the view of Li et al (Li et al., 2018). The author opined that individuals with varying knowledge, technical skills, work experience and educational background will react differently in

responding to external stimuli in the sensing, seizing and transforming activities. The data findings more specifically support the view that a "diversified team of managers with complementary knowledge, experience, and skills are more likely to succeed in recognising and seizing opportunities and reconfiguring organisational resources, capabilities and structure, facilitating digital transformation" (Li et al., 2018, p. 1132).

The purpose of Research Question 1 was to investigate the interpersonal factors influencing employee participation in the micro-foundations of dynamic capabilities. Having analysed the data, it is proposed that diversity, organisational culture and the skills of individual employees are critical factors influencing employee participation in the micro-foundation activities of sensing, seizing and transformation. In reflecting on the literary principles, it can be argued that creating a productive and psychologically safe environment conducive to the development of social and human capital, as well as managerial cognition. This is of the utmost importance to the well-being and success of an organisation.

6.3 RESEARCH QUESTION 2

Which interpersonal factors influence the interactions between employees on the meso-level?

6.3.1 Introduction to Research Question 2

Managerial social capital is created by relationships and connections between individuals. Social capital is created through investing in social networks and maintaining relationships (Sauerwald et al., 2016, p. 501; Stadler et al., 2018, p. 187). These social connections and authentic relationships are integral to dynamic managerial capabilities as discussed in relation to Research Question 1. Authentic relationships between colleagues on a meso-level within an organisation are a necessary factor in the establishment of dynamic capabilities (Salvato & Vassolo, 2018). However, social capital is not limited to the social capital between colleagues but includes social capital as a result of social relationships outside of the work environment as well.

The goodwill and social capital created by relationships outside of the work context can be transferred and applied within a work context. Goodwill is the "sympathy, trust and forgiveness offered us by friends and acquaintances" (Adler & Kwon, 2002, p. 18). Goodwill includes a measure of trust, forgiveness and sympathy extended in social

relations but also in a work context (Adler & Kwon, 2002, p. 18). For this reason, social capital and goodwill can be leveraged to benefit individual managerial capabilities and organisational-level dynamic capabilities.

This research study focused on senior management as the meso-level within an organisation. The executive team was not considered to be included in the meso-level and executives also did not form part of the sample individuals interviewed for the study. In terms of sociology research, a group is considered to be several people sharing a commonplace, culture, culture and identity (Fine, 2012, p. 160). It can be argued that the senior management within an organisation shares a common identity and purpose in an organisation constituting a meso-level group as per the definition of Fine (2012).

Diversity and team culture were identified as factors influencing the interactions between employees on the meso-level. Diversity could be divided into two elements: age diversity and the acknowledgement of diversity. Team culture also comprises two elements: a warm and open culture and the positive attitude of employees.

6.3.2 Influence of Diversity

Personal and professional social interactions also influence the managerial cognition of individual employees (Kor & Mesko, 2013, p. 234). Diversity on a human level can manifest in different ways such as race, age, gender, education and socio-economic background. It is submitted that all forms of diversity have an influence on interactions between colleagues and it is critical to acknowledge diversity as a factor influencing employee participation. In Chapter 5 the argument was raised that the success of the organisation is dependent on the ability of individual employees to acknowledge their differences and find a collegial manner to work together in the best interest of the organisation. The importance of a company culture where employees feel valued and acknowledged is emphasised in paragraph 5.4.2.

During the data analysis process, age diversity as a factor influencing employee interactions was specifically noted in different interviews. One participant viewed age diversity in a negative light and indicated that there are noteworthy differences between the younger and older generations in terms of attitude and willingness to work together as a team. The participant viewed the older generation as easier to work with.

In contrast, another participant viewed age diversity positively and focused on the richness of knowledge and capabilities that comes with gender diversity. The participant enunciated that the different age gap groups work together and learn from each. This highlights the importance of sharing knowledge and information between colleagues as well as the different skill sets and strengths different generations bring to the table. This links back to the discussion of Research Question 1 and the positive influence of diversity in terms of employee participation.

Due to the different views proffered by the participants, it can only be speculated that this is due to the organisational culture and specific leadership styles of the executive management in the different organisations. Notwithstanding this aspect, the evidence suggests that diversity and specifically age diversity plays a role in employee interactions.

6.3.3 Influence of Team Culture

The second factor influencing interactions between employees is team culture. Organisational culture was discussed as a factor influencing employee participation in the sensing, seizing and transformation activities of an organisation. Similarities were noted between the overall organisational culture and team culture. The first is the perception of the team as a "*close-knit family*" with a "warm and open culture" and the second is that flexibility is afforded to individual team members in the execution of their responsibilities. The participants emphasised the absence of micro-management within a team context. During the analysis process, honesty and respect were identified as characteristics of team culture. This goes hand in hand with treating colleagues with respect.

Another aspect of team culture is the importance of the attitude of the employees and the sharing of knowledge within the team context. The attitude of an individual team member is fundamental to the operation of a team and as one participant mentioned, the right attitude cannot be taught and is more critical than technical skills: "*(s)o I'd rather work with someone that has the right attitude and ethos and employ someone like that because I can always teach you the technical stuff over a year or two years*" (Participant 1). This view was supported by various other participants who noted that if the correct individuals are employed with the correct attitude, the sharing of information will increase expanding the knowledge base of the whole team. As mentioned by a participant, a team

works towards a common goal and the success thereof is depended on the sharing of ideas, opinions, information and knowledge between the different team members.

6.3.4 Conclusion to Research Question 2

Diversity and team culture have a significant influence on the interactions between colleagues on a senior management level. It is argued that it is pivotal to acknowledge the prevailing differences between colleagues, whether it is cultural, religious, or otherwise. The success of a team depends on the appointment of the correct individuals with a positive and team-orientated attitude. It is inferred that this will influence the social capital and goodwill that be created as a result of the social relationships on a team level.

6.4 RESEARCH QUESTION 3

What is the effect of interaction with the organisational leadership, if any?

6.4.1 Introduction to Research Question 3

Teece noted that the history of an organisation impacts its current and future performance with dynamic capabilities connecting the past with the future (Teece, 2007). An organisation that lacks dynamic capabilities will be disrupted by any change in the environment (Schoemaker et al., 2018). However, an organisation may prevail over past constraints and failures by renewing and changing any existing historic and dysfunctional processes (Suddaby et al., 2020, p. 549; Teece, 2007, p. 1341). This responsibility will ultimately fall on the shoulders of the executive management team. Harreld et al. believe that it is a primary and continuous responsibility of the executive management team to assist the organisation to develop dynamic capabilities (2007).

Adner and Helfat (2003) hypothesised that diversified managerial decisions influence business performance. The individual skill sets of different managers will result in differentiating managerial decisions (Adner & Helfat, 2003). Therefore the capabilities of individuals are key as the organisational success is dependent thereon (Li et al., 2018). It is argued that this is applicable irrespective of whether the individual is on a senior management level or executive management level.

In line with the discussion of Research Questions 1 and 2 and the influence of diversity, a characteristic of effective and dynamic management teams is the appreciation of the

different generic and specialised skill sets present within the team (Kor & Mesko, 2013). Further characteristics affecting the absorptive capacity of a management team are an advanced sense of common knowledge, language and shared meaning. This will enable the organisation to integrate specialised knowledge bases within the management team (Kor & Mesko, 2013). In the absence thereof, management's absorptive capacity is reduced to the absorptive capacity of individuals applied in isolation (Kor & Mesko, 2013).

The absorptive capacity of executive management is a prerequisite for a team (for example the senior management team) to continuously learn and sense new opportunities. In the absence of "social learning and integration mechanisms that enable managers to combine contrasting knowledge streams and capabilities, the executive team's absorptive capacity will be lacking in knowledge utilisation capabilities" (Kor & Mesko, 2013).

The CEO plays a pivotal role in the development of dynamic managerial capabilities of individuals. A CEO with a mentoring approach who coaches senior managers not only promotes the development of the individuals, but also a collaborative approach to the implementation of managerial capabilities. This collaborative approach promotes a "positive team environment that nurtures synergy, interactive learning, and debating, along with a shared sense of respect and support for team members. This environment fosters collective social capital among managers, which then feeds and grows the team's intellectual capital" (Li et al., 2018, p. 239). It is evident that the CEO plays a significant role in the development of senior management teams' managerial dynamic capabilities.

Another factor playing a significant role in the development of the dynamic capabilities of the senior management team is the dominant logic of the organisation. At the incorporation of an organisation, the dominant logic of the organisation is a reflection of the dominant logic of the initial management team. As a consequence, the evolution and development of the management team's dominant logic will lead to the development of the organisation's dominant logic which will evolve as "a system of expectations, beliefs, and priorities that are embedded in the firm's routines, procedures, and resource commitments" (Kor & Mesko, 2013, pp. 235-236). This offers the inference that the establishment of an organisation's dominant logic is a bottom-up process involving the senior management team. It should however be noted that an individual's managerial dominant logic is also influenced by managerial cognition: the exercise of managerial mental models, in conjunction with managerial human and social capital, in the context of a specific organisation (Kor & Mesko, 2013).

6.4.2 The effect of leadership interaction as a factor influencing meso-level dynamic capabilities

Leadership emerged as one of the key themes from the inductive analysis of the data. Leadership was raised in the context of an important individual skill, the leadership of the organisation as well as the specific characterisation in terms of the specific organisational leadership style. The positive influence of leadership was noted by 10 participants across both participant groups. The leadership styles were described as collaborative; responsive and approachable, supportive and encouraging.

The view of Kor and Mesko (2003) that the dominant logic of the organisation is initially determined by the dominant logic of the executive management team, was supported by the findings. Participant 8 noted that initially the organisation was managed by "*the Founders*" who had strict opinions on how things had to be done. In recent years, the dominant logic and manner in how things were managed changed dramatically. The catalyst for the change was a change in the executive leadership which led to a more focused and collaborative leadership style.

Despite the overwhelming consensus between the participants surrounding their positive interactions and engagements with their teams and management, various negative comments and feelings of disappointment and disconnection were raised by some participants. It can be argued that the insights provided by all the participants are of course subjective but also influenced by their unique experiences in the work environment. Even though some of the participants are employed by the same organisation, logic dictates that there are differences in the work environment (ranging in severity) based on the different management and leadership styles within the individual's department and reporting line.

As discussed in Chapter 5, an argument may be put forward that in some instances an inner circle may exist involving individuals on the executive team as well as senior managers. However, despite the contrasting view on leadership within one organisation, the data suggest that collaborative executive leadership, supportive and encouraging of their direct reports, has a positive influence on the overall performance of said direct reports.

From the interview data, collaborative leadership are evidenced by leadership who are open to the input and opinions of senior-level employees. This was further evidenced by the finding that the interactions between senior-level employees and their direct managers are conducive to a successful working relationship and are characterised by a supportive manager with an open and flexible management style. The evidence supports the view of Li et al. (2018) that the collaborative approach attested to by the participants promotes a positive team culture and a work environment conducive to the sharing of ideas, and knowledge sharing between colleagues. This has an overall positive effect on the social capital created within the team context as the increase in managerial human capital and managerial cognition (2018, p. 239).

6.4.3 Conclusion To Research Question 3

The findings of Research Question 3 concluded that the interactions of management have a significant influence on how their direct reports approach them and share ideas with them. Isolated, absent and unapproachable leadership leads to severe feelings of disappointment directed towards management and leads to employees acting in self-interest. This is detrimental to the execution of dynamic managerial capabilities within a team context.

The dynamic managerial capabilities of the senior management team support, strengthen and broaden the dynamic managerial capabilities of the CEO. The development of these dynamic managerial capabilities is, however, dependent on the CEO's efforts to assemble and cultivate an effective team (Kor & Mesko, 2013; Ma et al., 2022). As supported by the research findings, team environments that encourage interactions where ideas and opinions, dissenting otherwise, can be shared are conducive to communication where information and knowledge are shared. This leads to the improvement of the dynamic capabilities of the senior management team as well as the CEO (Kor & Mesko, 2013, pp. 239-240).

6.5 CONCLUSION

DMC endeavours to explain the connection between the decisions of the management team and the performance and strategic implementation of an organisation in a changing environment (Helfat & Martin, 2015). The connection between these two elements is created by managers who apply the micro-foundations of dynamic capabilities and re-

evaluate the growth and opportunity limits of the organisation and reconfigure the organisation's positioning accordingly (Kor & Mesko, 2013).

The interconnectedness of managerial cognition, managerial human and social capital is reflected in Kor and Mesko's (2013) view that managerial dominant logic is a result of the application of all three building blocks of dynamic managerial capabilities. The research supports the findings that diversity is one of the factors influencing all three foundations of dynamic managerial capabilities: managerial human capital, managerial social capital and managerial cognition. From the research findings, it is also evident that organisational culture can also influence the dominant logic of an organisation by the active pursuit of the organisational values of being collaborative, bold and inclusive.

The research findings further support the notion that interpersonal factors influencing interactions between senior-level employees will have a corresponding influence on the dynamic managerial capabilities of the employees. It is submitted that interpersonal factors influence the social relationships between colleagues, the broadening of managerial human capital through the sharing of ideas and information and, managerial cognition through the shaping of an individual's preconceived notions, perceptions and biases.

CHAPTER 7 CONCLUSION

7.1 INTRODUCTION

The purpose of this qualitative research study was to explore the relationships and interactions of senior-level management employees and the subsequent influence on DMC and dynamic capabilities. This study focused on the interpersonal factors influencing these interactions and relationships. Much research has been done on the subject of dynamic capabilities and DMC however this research study focused on the factors that have a bearing on the institutionalisation of dynamic capabilities on an organisational level.

The overarching research question was subdivided into three sub-questions, each focussing on a specific subtext of the study. Research Question 1 focused on factors influencing employee participation in the sensing, seizing and transformation activities of the organisation. Research Question 2 focused on the interactions between employees on a meso-level and lastly Research Question 3 focused on the influence of leadership. The contexts of the sub-questions were derived from principles enunciated in the literature review in Chapter 2.

The strategic principles central to the research are the dynamic capabilities framework and DMC. The various conceptualisations of dynamic capabilities were explored in Chapter 2 with the overall understanding that it is an iterative process involving "a firm's capacity to sense new opportunities in its environment and then seize those opportunities by adapting, integrating, and reconfiguring its key assets and activities" (Salvato & Vassolo, 2018, p. 1729). The micro-foundations of dynamic capabilities are described as the ability to sense changes including threats and opportunities in the organisation's business environment, the ability to seize new opportunities and lastly, the ability to transform existing organisational resources and capabilities (Teece, 2007).

Closely interwoven with DCF is the concept of DMC defined as "capabilities that managers build, integrate and reconfigure organisational resources and competencies (2003, p. 1012; Helfat & Martin, 2015; Huy & Zott, 2019; Kor & Mesko, 2013; Li et al., 2018). DMC comprises three elements: managerial cognition, managerial social capital and managerial human capital (Adner & Helfat, 2003; Helfat & Martin, 2015; Li et al., 2018; Schilke et al., 2018). Each of these elements forms an integral part of DMC and subject of much discussion within the context of the research study.

The DMC concept applies to individuals as well as a team of managers. Individuals differ in their dynamic managerial capabilities: some may have superior capabilities while others may lack the capabilities completely (Helfat & Martin, 2015). The structure and compatibility of different team members are of utmost importance. By implication, organisations with managers who have high-ranking capabilities will adapt more successfully in changing environments than organisations with senior managers who lack these capabilities (Helfat & Martin, 2015). During the course of the research, several factors were identified as having an influence on the capabilities of the individuals as well as the participation of employees in the sensing, seizing and transformation activities. These include the factors such as diversity, organisational culture as well as team culture, individual skills, leadership and interactions between colleagues as well as management. The factors were more fully discussed in Chapter 5.

In conclusion of the research dissertation, this chapter sets out the key findings and principal theoretical conclusions, research contribution of the study, recommendations for management and other stakeholder, limitations of the research and suggestions for further research.

7.2 PRINCIPAL THEORETICAL CONCLUSIONS

The principal theoretical conclusions are discussed about each Research Question.

7.2.1 Research Question 1

The following are the principal theoretical conclusions relating to Research Question 1:

- a) Organisational culture and team culture play a central role in an organisation successfully leveraging the collective technical and soft skills of its employees. Activities relating to the micro-foundations of dynamic capabilities cannot take place in isolation (Nonaka et al., 2016). The collective skills of employees are required in the development of organisational-level dynamic capabilities (Schoemaker et al., 2018, p. 16). The research concluded that an organisation will not be able to leverage the collective skills of its employees without an organisational and individual team culture conducive to the sharing of opinions and ideas by employees. Thus it can be surmised that organisational culture

influences the participation of employees in organisational activities relating to the micro-foundations of dynamic capabilities.

- b) The research concluded that diversity, in the broadest understanding of the concept, has a profound influence on employee participation in sensing, seizing and transformation activities. Furthermore, diversity influence the managerial social capital, managerial human capital and managerial cognition of employees and ultimately the organisation as a whole. This supports the opinion that a diversified team consisting of employees with different capabilities, skills and knowledge are more likely to succeed in recognising and seizing opportunities and transforming organisational resources (Li et al., 2018).
- c) The research findings indicate that human capital and cognitive capabilities are influenced by the continuous development of individual skills and improvement of knowledge about the industry. This is imperative for an organisation to note as individuals who lack these capabilities will fail to recognise and interpret external stimuli and market changes which will be to the ultimate detriment of the organisation (Helfat & Martin, 2015; Li et al., 2018).

7.2.2 Research Question 2

The principal theoretical conclusion relating to Research Question 2 relates to managerial social capital. Authentic relationships between colleagues on a meso-level within an organisation are a necessary factor in the establishment of social capital and organizational dynamic capabilities (Adler & Kwon, 2002; Salvato & Vassolo, 2018). The research findings concluded that managerial social capital and goodwill created through social relationships can be leveraged to benefit the organisational capabilities.

7.2.3 Research Question 3

The principal theoretical conclusion relating to Research Question 3 is that leadership has a significant effect on the development of the dynamic managerial capabilities of senior-level employees. It has a significant impact on the social interactions and relationships between employees, the participation of employees in dynamic activities and the dominant logic of the organisation. The research concluded that a collaborative leadership approach promotes a positive team culture and a work environment conducive to the sharing of ideas, and knowledge sharing between colleagues (Li et al.,

2018). This has an overall positive effect on the social capital created within the team context as the increase in managerial human capital and managerial cognition (Li et al., 2018).

7.3 RESEARCH CONTRIBUTION

This research study makes a small contribution to the existing literature exploring DCF and DCM, both on a theoretical and practical basis. On a theoretical basis, factors influencing various aspects of employee participation in dynamic capability activities as well as interactions between employees were identified. These factors range over various subject fields from diversity in the organisation, organisational culture, and technical and soft skills of employees to the different leadership styles of executive management.

The research contribution can also be implemented on a practical level both by the executive and senior management in organisations operating in the research industry. The findings can be taken into consideration and applied to effect positive change as per the recommendations to management and other stakeholders.

7.4 RECOMMENDATIONS FOR MANAGEMENT AND STAKEHOLDERS

The following recommendations are made to the management of organisations in the grant-funded research industry:

- a) It is crucial to develop a supportive organisational culture where employees are acknowledged as individuals with personal and professional lives. Further elements of an organisational culture conducive to employee participation and interactions are supportive management and open door policy. The creation of a psychological safe space for employees to share opinions and interact with management will aid in the development of individual dynamic managerial capabilities as well as dynamic capabilities on an organisational level. This will also aid in the autonomous decision-making capabilities of individuals.
- b) The diversity of a team and the overall organisation is pivotal to the success of the organisation. Diversity in age, gender, skills, knowledge and education all contribute to the richness of employees' participation and contributions in the

work environment. It is recommended that diverse teams are created not only at the senior management level but also within separate departments.

- c) The development of employees' managerial human capital and managerial cognition is to the benefit of the organisation. From the research findings, it is concluded that highly motivated employees have an inherent self-drive for continuous improvement. It is recommended that organisations get more involved in the development of their employees. A key aspect that must be prioritised is the ability to communicate ideas and opinions effectively.
- d) It is recommended that a collaborative leadership style is implanted in the organisational context as well as on the team level. This is critical to a conducive working and social relationship between colleagues.

7.5 LIMITATIONS OF THE RESEARCH

This is an exploratory qualitative study focused on the grant-funded research industry in South Africa. Due to the nature of the study, the following inherent limitations are applicable:

- a) Due to the specific focus of the study on the grant-funded research industry, the generalisability and transferability of the study are limited. As such, the research findings cannot be transferred to another industry or generally applied without considerable revision of the findings.
- b) 15 interviews were conducted for the research study. 12 participants were employed within the medical and health-related research industry and 3 participants were employed in the non-medical and health-related industry. Even though all the participants were employed within the greater grant-funded research industry, the majority of the participants are employees in the medical research field. Thus, the possibility exists of commonality in the research findings towards the medical and health-related research industry.
- c) As mentioned in Chapter 4, the researcher is currently employed by an organisation operating in the grant-funded research industry which presented the risk of research bias being present. This was mitigated as far as possible by following the interview guide as closely as reasonably possible.

7.6 SUGGESTIONS FOR FUTURE RESEARCH

Based on the research findings discussed in Chapters 5 and 6, the following areas of further research are proposed:

- a) One of the limitations of this study is the lack of a quantitative study. A quantitative measure is required to ascertain the extent of influence of the different interpersonal factors identified as playing a role within the context of the research study. It is suggested that a study is conducted per interpersonal factor to ascertain its effect on managerial human capital, managerial social capital and managerial cognition.
- b) Diversity was identified as a factor influencing employee participation in the micro-foundation activities of an organisation: sensing, seizing and transformation. One of the findings is that diversity is influenced by the type of services or work performed in the organisation. The inference was drawn that it may be due to the traditional male and female-orientated professions. This finding was outside of the scope of the research study and constitute an opportunity for further research.
- c) Another element which influences diversity itself is the locality of the organisation itself as well as the services provided and projects implemented. This matter was raised in terms of racial bias and diversity. The effect of locality and racial bias on dynamic capabilities has not been investigated as it is outside the scope of the research study. It is suggested that this is interesting in the context of South African society.
- d) Leadership and the influence of leadership is one of the key subject matters of the research findings. Leadership was raised especially as far as it relates to the implementation of a decentralised decision-making framework. Decentralised decision-making is a result of constructing an organisation on a multi-divisional basis enabling greater flexibility and accountability within the organisation as a whole. Further research can be conducted regarding the influence of a decentralised decision-making framework on senior-level management employees.

e) Another research finding in the context of leadership was the possibility that an inner circle exists involving individuals on the executive team as well as senior managers. Different participants employed by the same organisation gave dissenting views of organisational leadership, both positive and negative. It was deduced that participants' perceptions of leadership are subjective and dependent on both their positions in the organisation and their specific reporting line. Further research studies can be done regarding the effect of an inner circle on the dynamic capabilities of an organisation and the dynamic managerial capabilities of employees.

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APPENDIX A CONSISTENCY MATRIX

RESEARCH QUESTION	LITERATURE REVIEW	DATA COLLECTION TOOL	DATA ANALYSIS TECHNIQUE
1. What are the inherent factors influencing employee participation in the sensing, seizing and transformation of dynamic capabilities?	Dynamic Capabilities Dynamic Managerial Capabilities Multi-level approach Paragraphs 2.2, 2.3 and 2.4	Interview Guide Questions 1 and 2: Foundational and Contextual Questions Question 3: Capability and Relevance Questions	Thematic Analysis
2. Which interpersonal factors influence the interactions between employees on the meso-level?	Paragraph 2.5: Factors influencing employee engagement Paragraphs 2.2.7, 2.3, 2.4.1, 2.4.2.1 etc	Interview Guide Question 4: Employee Interactions	Thematic Analysis
3. What is the effect of interaction with the organisational leadership, if any?	Leadership (including strategic and shared leadership) Paragraphs 2.6 and 2.7	Interview Guide Question 5: Management Interactions	Thematic Analysis

APPENDIX B SEMI-STRUCTURED INTERVIEW GUIDE

Details

Name and Surname:

Organisation:

Job Title:

Gender:

Age:

Race:

Date of interview:

Time and duration of interview:

Introduction

Thank you for availing yourself and agreeing to participate in this interview. Your participation in this research study is appreciated however, it is voluntary and you may elect to withdraw at any time.

Kindly note that the interview is confidential and will not be shared with your employing organisation. For this research, all of the data will be anonymised and you will not be identified or identifiable. Your information will be dealt with in line with the Protection of Personal Information Act.

The purpose of this study is to understand the interpersonal factors that influence the interactions between employees on a senior level of management and the subsequent effect on the organisation. You will be asked a series of questions and you may decline to answer some of the questions if you so wish. The interview is expected to last between 45 – 60 minutes. For data analysis purposes, the interview will be recorded with your permission.

Question 1 Foundational Questions

Please tell me a little about yourself:

- What are your qualifications?
- For how long have you been in the employment by your current employer?
- What is your industry-related experience?
- What is your previous employment history?

Question 2 Contextual Questions

Please tell me about your current employer:

- History of the company; what is the company known for; what does the company do well?
- How would you describe the company culture?

- How would you describe the diversity within the organisation (race, gender, level of education)?

Question 3 Capability and Relevance Questions

Please tell me about your skill set:

- What do you perceive to be your most important skills?
- How do you keep abreast of industry developments?
- How do you interpret what is most important to your organisation, Funders and/or Sponsors?
- How does your company support and promote ongoing professional development?
- Does the company provide any formal training? Do you partake in any additional formal training or activities to enable you to keep abreast of industry developments?
- Are you (or your company) part of any industry (governing) bodies or think tanks?
- How does your company liaise with Funders/Sponsors?
- How does your company ascertain what is important and prioritised by various Funders/Sponsors?
- How does your company stay close to Funders' interests? How does your organisation stay relevant to Funders/Sponsors?
- How do you, and your company respond to the requirements or requests by Sponsors/Funders?

Question 4 Employee Interactions

Please tell me about your interactions with your colleagues:

- Describe the team and colleagues you interact with most.
- How does diversity impact your interactions with colleagues?
- What concerns do you have with sharing your ideas or opinions with your colleagues?
- What factors would you say play a role in your daily conversations with your colleagues? (Politics? Religion? Trust issues?)

Question 5 Management Interactions

Please tell me about your interactions with management:

- Describe your reporting line;
- Describe the overall leadership style within the organisation;

- What would you say are the predominant leadership characteristics within the organisation?
- How do you feel about sharing new ideas within your reporting line?
- Are you able to voice any opinions (and disagreements) with any decision made within the organisation?
- How does your organisation promote productive, collegial interactions between employees?

APPENDIX C ETHICAL APPROVAL

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

Ethical Clearance Approved

Dear Adel Venter,

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

You are therefore allowed to continue collecting your data.

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

[Ethical Clearance Form](#)

Kind Regards

APPENDIX D INFORMED CONSENT FORM

INFORMED CONSENT FORM FOR INTERVIEWS

I am conducting research on the effect of interpersonal factors influencing meso-level dynamic capabilities in grant-funded research institutions. Our interview is expected to last 45 - 60 minutes and will help us understand the influence of interpersonal interactions on the dynamic capabilities of an organisation.

Your participation is voluntary and you can withdraw at any time without penalty.

By signing this letter, you are indicating that you have given permission for:

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

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

Researcher name:

Email:

Phone:

Researcher Supervisor Name: Prof Keith Fairhurst

Email: keith@unleashconsult.com

Signature of Participant:

Date:

Signature of Researcher:

Date:

APPENDIX E CODEBOOK

Atlas.ti Report

Mpil Masters

Codes

Report created by Adel Venter on 20 Nov 2022

- **Ability to unite people**

Used In Documents:

1 Participant 1 A 13 Participant 12 15 Participant 14

- **Accountability for mistakes**

Used In Documents:

2 Participant 1 B 4 Participant 3 14 Participant 13

- **Actively doing research about the Funder**

Used In Documents:

7 Participant 6

- **Adapting to change**

Used In Documents:

4 Participant 3 10 Participant 8

- **Adhering to guidelines of funders/clients**

Used In Documents:

1 Participant 1 A 4 Participant 3 7 Participant 6 10 Participant 8 14 Participant 13

- **Administratively heavy**

Used In Documents:

5 Participant 4

- **Attention to detail**

Used In Documents:

4 Participant 3 7 Participant 6 10 Participant 8

- **Authenticity and empathy as individual skills**

Used In Documents:

11 Participant 10 12 Participant 11 16 Participant 15

- **Being assertive is an important individual skill**

Used In Documents:

5 Participant 4

- **Better training required**

Used In Documents:

4 Participant 3 8 Participant 7

- **Business interests**

Used In Documents:

3 Participant 2 4 Participant 3 11 Participant 10 12 Participant 11 13 Participant 12 14 Participant 13 15 Participant 14

- **Business requirements determine business interests and importance**

Used In Documents:

1 Participant 1 A 8 Participant 7 10 Participant 8 11 Participant 10

- o **Check-in with teams members**

Used In Documents:

12 Participant 11 16 Participant 15

- **Clash of personalities**

Used In Documents:

2 Participant 1 B 6 Participant 5 14 Participant 13

- **Clear communication between colleagues**

Used In Documents:

3 Participant 2 6 Participant 5 8 Participant 7 12 Participant 11 13 Participant 12

- **Close-knit family**

Used In Documents:

1 Participant 1 A 6 Participant 5 11 Participant 10

- **Communication is an important skill**

Used In Documents:

1 Participant 1 A 6 Participant 5 8 Participant 7 12 Participant 11 15 Participant 14 16 Participant 15

- **Company not part of industry think tank**

Used In Documents:

5 Participant 4 6 Participant 5 7 Participant 6 8 Participant 7

- o **Company part of think tank**

Used In Documents:

13 Participant 12

- **Consensus-driven culture**

Used In Documents:

4 Participant 3 9 Participant 9 10 Participant 8

- **Covid and strikes influencing interactions**

Used In Documents:

7 Participant 6

- **creativity is an important skill**

Used In Documents:

8 Participant 7 16 Participant 15

- **Culture flows from leadership**

Used In Documents:

10 Participant 8 13 Participant 12 15 Participant 14

- **Delivering on projects is important to funders**

Used In Documents:

3 Participant 2 8 Participant 7 9 Participant 9 10 Participant 8 12 Participant 11 14 Participant 13

- o **Demanding industry**

Used In Documents:

1 Participant 1 A

- **Departments working in separate silos**

Used In Documents:

5 Participant 4 7 Participant 6 14 Participant 13

- **Diversity**

Used In Documents:

3 Participant 2 4 Participant 3 5 Participant 4 6 Participant 5 7 Participant 6 9 Participant 9 10 Participant 8 11 Participant 10 12 Participant 11 13 Participant 12

- o **Diversity within the organisation**

- **Diversity within the organisation: Gender diversity is more females**

Used In Documents:

10 Participant 8 11 Participant 10 12 Participant 11 13 Participant 12

- **Diversity within the organisation: High level of diversity**

Used In Documents:

1 Participant 1 A 3 Participant 2 4 Participant 3 5 Participant 4 7 Participant 6 8 Participant 7 10 Participant 8 11 Participant 10 12 Participant 11 13 Participant 12 14 Participant 13 15 Participant 14 16 Participant 15

- **Diversity within the organisation: Race diversity and bias**

Used In Documents:

10 Participant 8 12 Participant 11 13 Participant 12 14 Participant 13

- **Easy-going culture**

Used In Documents:

3 Participant 2 11 Participant 10 12 Participant 11

- **Easy to share ideas with colleagues**

Used In Documents:

5 Participant 4 7 Participant 6 8 Participant 7 10 Participant 8 11 Participant 10 12 Participant 11 14 Participant 13 15 Participant 14

- **Effect of age diversity on interactions between colleagues**

Used In Documents:

5 Participant 4 11 Participant 10

- **Emotional intelligence as an individual skill**

Used In Documents:

9 Participant 9

- **Emotions of colleagues**

Used In Documents:

2 Participant 1 B 9 Participant 9

- **Employees being listened to**

Used In Documents:

3 Participant 2 5 Participant 4 11 Participant 10 15 Participant 14

- **Employees drive their training**

Used In Documents:

7 Participant 6 8 Participant 7 9 Participant 9 12 Participant 11 13 Participant 12 14 Participant 13

- **Employees need to feel valued**

Used In Documents:

5 Participant 4 6 Participant 5 12 Participant 11

- **Employment duration**

Used In Documents:

1 Participant 1 A 3 Participant 2

- **Employment qualification**

Used In Documents:

1 Participant 1 A 4 Participant 3

- **Engagement with clients**

Used In Documents:

1 Participant 1 A 6 Participant 5 8 Participant 7 13 Participant 12

- **Engaging with key decision-makers**

Used In Documents:

1 Participant 1 A

- **Family circumstances**

Used In Documents:

4 Participant 3 5 Participant 4 6 Participant 5 12 Participant 11

- **Feeling frustration towards line managers**

Used In Documents:

6 Participant 5 7 Participant 6

- **Flexibility in team operations**

Used In Documents:

1 Participant 1 A 3 Participant 2 4 Participant 3 12 Participant 11 13 Participant 12 14 Participant 13

- **Flexible decision-making environment**

Used In Documents:

2 Participant 1 B 13 Participant 12

- **Funder or Client Interests**

Used In Documents:

3 Participant 2 4 Participant 3 5 Participant 4 6 Participant 5 7 Participant 6 8 Participant 7 13 Participant 12

- **Funder provided training**

Used In Documents:

4 Participant 3 5 Participant 4 7 Participant 6 10 Participant 8

- **Funders request input in the research agenda**

Used In Documents:

10 Participant 8 11 Participant 10

- **Good communication from projects to funders**

Used In Documents:

3 Participant 2 4 Participant 3 5 Participant 4 6 Participant 5 8 Participant 7 11 Participant 10 12 Participant 11 14 Participant 13 16 Participant 15

- **Good working relationships between colleagues**

Used In Documents:

4 Participant 3 5 Participant 4 6 Participant 5 7 Participant 6 8 Participant 7 9 Participant 9 12 Participant 11 16 Participant 15

- **Grant management is an important individual skill**

Used In Documents:

3 Participant 2

- **High-pressure environment**

Used In Documents:

1 Participant 1 A 3 Participant 2 7 Participant 6 10 Participant 8 12 Participant 11 13 Participant 12

- **High level of education**

Used In Documents:

8 Participant 7 9 Participant 9 10 Participant 8 11 Participant 10 12 Participant 11 13 Participant 12 14 Participant 13 15 Participant 14 16 Participant 15

- **High workload**

Used In Documents:

3 Participant 2 5 Participant 4 7 Participant 6 10 Participant 8 13 Participant 12

- **Honesty within the team**

Used In Documents:

2 Participant 1 B 4 Participant 3 15 Participant 14

- **HR determine the training needs of employees**

Used In Documents:

3 Participant 2 11 Participant 10 13 Participant 12

- **important to employ the correct team members**

Used In Documents:

1 Participant 1 A 2 Participant 1 B 4 Participant 3

- o **Individual perspective**

Used In Documents:

11 Participant 10

- o **Influence of diversity on employee interaction**

- **Influence of diversity on employee interaction: Diversity does not influence interactions**

Used In Documents:

1 Participant 1 A 5 Participant 4 14 Participant 13

- **Influence of diversity on employee interaction: Diversity influences interactions between colleagues**

Used In Documents:

4 Participant 3 5 Participant 4 6 Participant 5 7 Participant 6 9 Participant 9 10 Participant 8 11 Participant 10 12 Participant 11 13 Participant 12 14 Participant 13

- **Influence of diversity on employee interaction: Uncertain whether diversity influences interactions between colleagues**

Used In Documents:

📄 3 Participant 2

- **Individual employees are in think tanks**

Used In Documents:

📄 8 Participant 7 📄 10 Participant 8 📄 11 Participant 10 📄 13 Participant 12 📄 14 Participant 13

- **Instructional-based leadership**

Used In Documents:

📄 2 Participant 1 B

- **Integrity**

Used In Documents:

📄 8 Participant 7

- **Intellect and humility are important to senior managers skillset**

Used In Documents:

📄 9 Participant 9

- **Intellectual Culture**

Used In Documents:

📄 9 Participant 9

- **Interaction with funders and clients**

Used In Documents:

📄 3 Participant 2 📄 8 Participant 7 📄 10 Participant 8 📄 12 Participant 11 📄 13 Participant 12 📄 14 Participant 13 📄 15 Participant 14

- **Interactions with Management**

Used In Documents:

📄 13 Participant 12

- **Interests of the Funder become interests of the organisation**

Used In Documents:

📄 10 Participant 8 📄 11 Participant 10 📄 16 Participant 15

- **Internal organisational drive to keep up to date with funders**

Used In Documents:

📄 11 Participant 10

- **Internal training courses**

Used In Documents:

📄 1 Participant 1 A 📄 3 Participant 2 📄 4 Participant 3 📄 5 Participant 4 📄 6 Participant 5 📄 7 Participant 6 📄 8 Participant 7 📄 10 Participant 8 📄 12 Participant 11 📄 13 Participant 12

- **Interpersonal skills are important**

Used In Documents:

📄 10 Participant 8 📄 15 Participant 14

- **Kindness as an individual skill**

Used In Documents:

📄 11 Participant 10

- **Knowledge sharing leads to growth**

Used In Documents:

📄 2 Participant 1 B 📄 8 Participant 7 📄 10 Participant 8

- **Lack of clarity in communications**

Used In Documents:

📄 2 Participant 1 B 📄 5 Participant 4 📄 7 Participant 6

- **Lack of collegiality between colleagues**

Used In Documents:

📄 9 Participant 9

- **Lack of strategic planning by C-suite**

Used In Documents:

- **Male-dominated environment**

Used In Documents:

1 Participant 1 A

- **Managing difficult clients**

Used In Documents:

5 Participant 4

- **Managing multiple teams**

Used In Documents:

1 Participant 1 A 14 Participant 13

- **Merit of ideas to be shared**

Used In Documents:

2 Participant 1 B 10 Participant 8

- **Motivated workforce**

Used In Documents:

1 Participant 1 A 5 Participant 4 6 Participant 5 8 Participant 7 9 Participant 9 14 Participant 13

- **Need team building**

Used In Documents:

7 Participant 6

- **No action from management to promote collegial interactions**

Used In Documents:

4 Participant 3 5 Participant 4 7 Participant 6 8 Participant 7 9 Participant 9

- **Not actively keeping up with industry developments**

Used In Documents:

4 Participant 3 5 Participant 4 8 Participant 7 14 Participant 13

- **Ongoing training initiated by individual employees**

Used In Documents:

4 Participant 3 11 Participant 10

- **Ongoing training is critical to business**

Used In Documents:

1 Participant 1 A 3 Participant 2

- **Ongoing training supported**

Used In Documents:

1 Participant 1 A 9 Participant 9 10 Participant 8 11 Participant 10 12 Participant 11 13 Participant 12 14 Participant 13 15 Participant 14 16 Participant 15

- **Open door policy**

Used In Documents:

1 Participant 1 A 3 Participant 2 6 Participant 5 11 Participant 10 12 Participant 11 16 Participant 15

- **Open door policy in the team**

Used In Documents:

3 Participant 2 7 Participant 6 11 Participant 10

- **Open interactions with management**

Used In Documents:

2 Participant 1 B 3 Participant 2 5 Participant 4 6 Participant 5 12 Participant 11 15 Participant 14

- **Organisation concerned with social impact matters**

Used In Documents:

11 Participant 10 13 Participant 12 14 Participant 13

- **Organisation seeks funders which align with their interests**

Used In Documents:

10 Participant 8 14 Participant 13

- **People-orientated culture**

Used In Documents:

5 Participant 4 8 Participant 7 10 Participant 8 11 Participant 10 12 Participant 11 13 Participant 12

• **People skills are important**

Used In Documents:

9 Participant 9 13 Participant 12

• **Performance-driven culture**

Used In Documents:

10 Participant 8 11 Participant 10

• **Personal subscription to communication platforms**

Used In Documents:

10 Participant 8 11 Participant 10

• **Petrol, stress, and standard of living influencing interactions**

Used In Documents:

4 Participant 3 14 Participant 13

• **Politics play a smaller role in interactions with employees**

Used In Documents:

9 Participant 9 13 Participant 12

• **Positive attitude of employees**

Used In Documents:

1 Participant 1 A 4 Participant 3 5 Participant 4 8 Participant 7

• **Positive culture despite the demanding environment**

Used In Documents:

1 Participant 1 A

• **Prioritising requests from funders**

Used In Documents:

5 Participant 4

• **Problem-solving**

Used In Documents:

4 Participant 3 8 Participant 7 11 Participant 10

• **Professional and structured company culture**

Used In Documents:

8 Participant 7 9 Participant 9

• **Proficient in managing grants**

Used In Documents:

1 Participant 1 A 4 Participant 3 5 Participant 4 7 Participant 6 10 Participant 8 11 Participant 10

• **Providing value to clients**

Used In Documents:

1 Participant 1 A 6 Participant 5 7 Participant 6

• **Renowned researchers - funders reach out to them**

Used In Documents:

7 Participant 6

o **Reporting Line**

• **Reporting Line: Importance of motivating employees**

Used In Documents:

8 Participant 7

• **Reporting Line: Professional and collegial interactions with management**

Used In Documents:

3 Participant 2 4 Participant 3 7 Participant 6 9 Participant 9 14 Participant 13

• **Reporting Line: Supportive Reporting Line**

Used In Documents:

5 Participant 4 12 Participant 11 14 Participant 13 16 Participant 15

• **Resourceful and helpful team**

Used In Documents:

7 Participant 6

- **Respect for colleagues**

Used In Documents:

1 Participant 1 A 4 Participant 3 11 Participant 10 14 Participant 13 15 Participant 14 16 Participant 15

- **Responsibility and accountability for own actions**

Used In Documents:

9 Participant 9 14 Participant 13

- **Room to consider other colleagues' opinions**

Used In Documents:

3 Participant 2 4 Participant 3

- **Self-drive towards understanding and learning**

Used In Documents:

1 Participant 1 A 2 Participant 1 B 4 Participant 3 7 Participant 6 8 Participant 7 10 Participant 8 11 Participant 10 12 Participant 11 13 Participant 12 16 Participant 15

- **Self-sufficient and effective managers**

Used In Documents:

2 Participant 1 B 12 Participant 11 13 Participant 12 14 Participant 13

- **Senior manager**

Used In Documents:

1 Participant 1 A 3 Participant 2 5 Participant 4 8 Participant 7 9 Participant 9

- o **Sharing of ideas**

- **Sharing of ideas: Anyone can share ideas**

Used In Documents:

2 Participant 1 B 3 Participant 2 8 Participant 7 11 Participant 10 12 Participant 11 13 Participant 12

- **Sharing of ideas: Being cautious in sharing ideas and opinions**

Used In Documents:

2 Participant 1 B 4 Participant 3 5 Participant 4 7 Participant 6

- **Sharing of ideas: Easy to share ideas and disagree with management**

Used In Documents:

3 Participant 2 4 Participant 3 5 Participant 4 6 Participant 5 8 Participant 7 9 Participant 9 10 Participant 8 11 Participant 10 12 Participant 11 13 Participant 12 14 Participant 13 16 Participant 15

- **Skills of individuals**

Used In Documents:

13 Participant 12 14 Participant 13

- **Skills of organisation**

Used In Documents:

6 Participant 5 10 Participant 8

- **Social engagement between team members**

Used In Documents:

1 Participant 1 A 2 Participant 1 B 10 Participant 8 16 Participant 15

- **Statistics of interviewees**

Used In Documents:

4 Participant 3 6 Participant 5 7 Participant 6 9 Participant 9 10 Participant 8

- **Strategic planning**

Used In Documents:

1 Participant 1 A 11 Participant 10 13 Participant 12

- **Supportive and accommodating culture**

Used In Documents:

3 Participant 2 5 Participant 4 10 Participant 8 12 Participant 11 16 Participant 15

- **Understanding risk profile determines the importance**

Used In Documents:

1 Participant 1 A

- o **Understanding the business environment**

Used In Documents:

13 Participant 12 14 Participant 13

- **Unity in a common goal**

Used In Documents:

4 Participant 3 10 Participant 8 12 Participant 11 13 Participant 12 14 Participant 13

- **warm and open culture**

Used In Documents:

8 Participant 7 11 Participant 10 12 Participant 11 13 Participant 12