Gordon Institute of Business Science
University of Pretoria

The moderating role of strategic agility on the relationship between entrepreneurial orientation and organisational performance

Deon Govender
Student Number: 18370510

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ABSTRACT

Existing research has indicated that the strength of the relationship between entrepreneurial orientation (EO) and organisational performance (OP) is contingent and that through the theoretical lens of dynamic capabilities (DC), strategic agility (SA) moderates the relationship between EO and OP. This explanatory quantitative research study, using 138 organisations from different industries, seeks to determine if SA moderates the relationship between EO and OP. The study considered the five dimensions of EO, which included risk-taking innovativeness, proactiveness, competitive aggressiveness and autonomy, and the three dimensions of SA, which included strategic sensitivity (SS), collective commitment (CC), and resource fluidity (RF). A linear regression analysis found a positive relationship between EO and OP. However, the moderated multiple regression performed using Process v3.5 within SPSS found that although SA does not moderate the relationship between EO and OP, SA supports EO in improving OP, which suggests that organisations should develop both EO and SA in order to improve OP.

KEYWORDS

Entrepreneurial Orientation; Strategic Agility; Dynamic Capabilities; Organisational Performance

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 Business Administration 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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Deon Govender

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CHAPTER 1

RESEARCH PROBLEM

1.1. Introduction

Chapter one provides a background to the research project and discusses the business and theoretical relevance of the research. It also discusses the research objectives, the scope of the research, and outlines the chapters that follow.

1.2. Background to the Research Project

Recently, the velocity at which technology changes, deregulation, and globalisation occurs, have rendered business environments 'hyper-competitive' (Xing, Liu, Boojihawon, & Tarba, 2020). Concurrently, new and distinctive challenges, such as the global pandemic and extreme weather events, have jeopardised the survivability and success of existing organisations (Ahammad, Glaister, & Gomes, 2020). For organisations to not only survive but to also thrive in this turbulent environment, they must acquire a sustained competitive advantage (Hagen, Zucchella, & Ghauri, 2019). Furthermore, organisations are required to operate with an improved OP, despite the challenges that this turbulent environment presents (Kohtamäki, Heimonen, Sjödin, & Heikkilä, 2020).

EO, which is as an organisational attribute that exists to the degree to which that organisation supports and exhibits a sustained pattern of entrepreneurial behaviour, has been positioned as a potential source to improve OP in turbulent environments (Covin & Wales, 2019). This source stems from an EO organisations capacity to achieve improved OP across different organisational sizes such small and medium enterprises, or corporate enterprises (Covin & Lumpkin, 2011; Núñez-Pomar, Prado-Gascó, Sanz, Hervás, & Moreno, 2016), and across different levels within organisations (Covin et al., 2020; Wales, Monsen, & McKelvie, 2011).

Additionally, EO organisations exhibit characteristics of SA, which enables the organisation to rapidly respond to changes in the environment (Xing et al., 2020). SA

is a dynamic meta-capability that is a result of the combination of three DCs, strategic sensitivity, collective commitment, and resource fluidity (Fourné, Jansen, & Mom, 2014). Furthermore, the organisation can dynamically revive the organisation's strategy in a turbulent external business environment (Doz, 2020). Therefore, EO organisations that exhibit higher levels of SA can improve its OP and create a superior competitive advantage (Kale, Aknar, & Başar, 2019).

However, scholars have highlighted that the strength of the relationship between EO and OP is contingent (Donbesuur, Boso, & Hultman, 2020). Covin and Wales (2019) supported the view that the EO and OP relationship is contingent and stated that "EO in itself is not the recipe for long-term organizational success, and the promotion of innovation and change as manifested in various forms of new entry is only half the challenge" (p. 11). This notion suggests that although EO improves OP, this relationship is moderated by other factors, either external or internal, to the organisation (Dong, Xu, Luo, Nicol, & Liu, 2020).

Scholars have also highlighted that EO organisations display different characteristics from traditional organisations and that when the strategic sensitivity, collective commitment, and resource fluidity dimensions of SA connect with EO, through the organisation's dynamic capabilities (Teece, Pisano, & Shuen, 1997), OP improves (Xing et al., 2020). However, research has indicated that although SA positively influences the performance of organisations geared toward entrepreneurial activity (Kohtamäki et al., 2020), the SA and OP relationship is also contingent (e Cunha, Gomes, Mellahi, Miner, & Rego, 2020).

In summary, scholars have primarily focused on understanding both the internal and external moderating factors that influence the EO and OP relationship (Engelen, Kube, Schmidt, & Flatten, 2014). However, few have explored moderating factors through the theoretical lens of dynamic capabilities (Teece et al., 1997), as the dynamism and change associated with EO require organisations to build capabilities that enable them to adapt to new business models in response to innovations (Eshima & Anderson, 2017). Therefore, this study seeks to determine if SA moderates the relationship between EO and OP in the context of organisations operating in South Africa.

1.3. Business Relevance of the Research

The global pandemic, among other things, has slowed the global economy and has shifted the competitive landscape (Ahammad et al., 2020). As a result, organisations that were not adaptable and flexible enough were among the worst impacted as this threatened not only their sustainability but also their survivability (Doz, 2020). For example, 8.1% of South Africans have either lost their jobs or had to close their businesses during the national lock-down, which was as a direct result of the global pandemic (Stats SA, 2020). This threat to businesses emphasises the need for organisations to seek out competitive advantages that enables them to survive and grow in these turbulent environments (Kohtamäki et al., 2020).

Additionally, technological changes have resulted in the mass-personalisation and customisation of production and consumption, which attributed to progressively shorter product life cycles (Doz, 2020). These technological changes, coupled with the globalisation of customers and competitors have driven organisations to reduce costs associated with its supply chains, such that they can sense the changes in market conditions and rapidly respond to prevent a zero-profit outcome (Shan, Song, & Ju, 2016). Organisations that can prevent this outcome must broaden its view by striving to recognise and exploit unmet opportunities through new ventures (Calic & Shevchenko, 2020). This strategic paradigm enables the organisation to perform better than its competitors, thus creating a competitive advantage (Poudel, Carter, & Lonial, 2019).

In a bid to not only remain a ‘going concern’ but to also stimulate growth and obtain a competitive advantage, SMEs and CEs must undertake new entry through entrepreneurial processes that have a clear positive relationship with OP (Dong et al., 2020). Additionally, these organisations must explore new ventures in the form of pursuing opportunities for a new product, service or experience in a new or existing market, as this is an essential and emergent task in creating economic wealth (Donbesuur et al., 2020). These new ventures, which are enabled by EO, may generate superior economic returns if the organisation possesses capabilities that dynamically foster opportunity-seeking and advantage-seeking behaviours (Wang, Thornhill, & De Castro, 2017).

Furthermore, EO plays a vital role as a driver of economic growth, has immense strategic significance, and is often associated with OP (Núñez-Pomar et al., 2016). It is recognised as the strategy-making processes, structures and behaviours, facilitating the pursuit of opportunities, of organisations characterised by risk-taking, innovativeness, proactiveness, competitive aggressiveness and autonomy (Lechner & Gudmundsson, 2014). However, while EO is determining factor for new venture performance, the turbulent business environments that these new ventures operate in, coupled with significant constraints such as issues of newness, resources and stakeholder commitment, negatively impacts its performance and as a result undermines its survival (Donbesuur et al., 2020).

The turbulent business environment prohibits a new ventures ability to compete with other established organisations in this competitive space and as such, recommendations for organisations to develop its EO, which is its orientation toward entrepreneurial activity, have been made (Calic & Shevchenko, 2020). For example, Hughes and Morgan (2007) stated that "to compete under such conditions, normative theory encourages young firms to hone their entrepreneurial capabilities so as to launch speedy and stealthy attacks on rivals" (p. 651). This notion suggests that organisations should build not only entrepreneurial capabilities but also capabilities that enable speed and stealth when pursuing new opportunities (Ferreira, Coelho, & Moutinho, 2020). Additionally, once organisations identify these new opportunities, they need to rapidly configure the organisation such that it can respond to the new opportunity efficiently and effectively which maximises the value created (Covin & Wales, 2019).

Organisations in pursuit of new opportunities in this volatile, uncertain, complex and ambiguous (VUCA) environment (Weber & Tarba, 2014), must remain flexible and continuously adapt its strategic direction such that it can develop new ways of creating value (Kohtamäki et al., 2020). Additionally, organisations operating under these conditions must be agile, responsive, and innovative such that it can continuously transform itself by infusing innovative ideas into the business's operations (Xing et al., 2020).

These characteristics are essential for organisations as this VUCA environment has rendered traditional sources of competitive advantage rare, which resulted in

organisations turning to SA in order to sense and seize opportunities, and, quickly and seamlessly transform its business models such that it can improve its competitiveness in the market (Fourné et al., 2014). Furthermore, SA facilitates the continuous interaction between the external and internal environments and gathers and utilises information quickly such that the organisation can capture the new value created rapidly (Vaillant & Lafuente, 2019).

However, Ahammad et al. (2020) advocated that SA not only enhances the organisation's performance by maximising the benefit derived from the new opportunities but also improves the organisations quality of the competitive activity. Battistella, De Toni, De Zan, and Pessot (2017) supported this perspective and argued that organisations “competing in fast-changing environments require being agile in perceiving and developing opportunities to create innovations, increasing the response to disruptions and enhancing resilience against external threats” (p. 65). This notion suggests that the ability for organisations to reinvent itself and rapidly transform its business models to remain competitive and capture the new value created is instrumental for the organisation's survival (e Cunha et al., 2020).

In summary, EO is postulated as a potential solution to stimulate growth for existing organisations operating in turbulent environments (Dong et al., 2020; Núñez-Pomar et al., 2016; Poudel et al., 2019; Shan et al., 2016; Wang et al., 2017). However, EO is only half the answer as its relationship to OP is dependent on other internal or external variables and is therefore not always a positive one (Hughes & Morgan, 2007; Lechner & Gudmundsson, 2014). Although many scholars have explored the internal and external variables that moderate the EO-OP relationship, few have done so through the theoretical lens of dynamic capabilities(Teece et al., 1997), which considers EO as an organisational capability that is configured with other organisational capabilities to improve OP (Eshima & Anderson, 2017).

Simultaneously, studies have indicated that SA supports an organisation's entrepreneurial activities in three distinct ways (Xing et al., 2020). Firstly, it enables organisations to sense the changes and identify opportunities in shifting market conditions (Niemand, Rigtering, Kallmünzer, Kraus, & Maalaoui, in press). Secondly, it enables organisations to obtain a collective commitment from the stakeholders involved in the new opportunity (Ferreira et al., 2020). Lastly, it enables organisations

to reconfigure itself quickly and rapidly such that it can capture the new value created from new opportunities (Wang, Dass, Arnett, & Yu, 2020). Therefore, SA, which is a combination of the strategic sensitivity, collective commitment and resource fluidity capabilities, has been suggested as the other half of the EO-OP equation as it provides organisations with the ability to rapidly sense the market and reconfigure itself to respond to new opportunities or external threats (Battistella et al., 2017; Doz, 2020; Weber & Tarba, 2014).

Consequently, a better understanding of the strength of which SA and its dimensions of strategic sensitivity, collective commitment and resource fluidity moderates the EO-OP relationship is paramount for the survival of organisations operating in turbulent markets (Ahammad et al., 2020; Fourné et al., 2014; Xing et al., 2020).

1.4. Theoretical Relevance of the Research

Over the past four decades, EO has been one of the most studied phenomena in the field of entrepreneurship (Covin et al., 2020). This scholarly focus is attributed to EOs association with OP and its potential to stimulate growth (Covin & Wales, 2019) across different organisational sizes (Covin & Lumpkin, 2011) and different levels within organisations (Covin et al., 2020; Wales et al., 2011) in both turbulent environments (Becherer & Maurer, 1997) and dynamic markets (Dimitratos, Lioukas, & Carter, 2004). However, scholars have posited that the EO-OP relationship is contingent, which means that the EO-OP relationship is dependent on either internal or external factors (Rauch, Wiklund, Lumpkin, & Frese, 2009).

Therefore, considerable scholarly attention went into understanding the ideal configurations that optimise the EO-OP relationship (Engelen et al., 2014). For example how the antecedents (Boso, Story, & Cadogan, 2013; Dimitratos et al., 2004), mediators (Engelen et al., 2014; Patel, Kohtamäki, Parida, & Wincent, 2015), or moderators (Poudel et al., 2019; Sabahi & Parast, 2020) interact with EO, to determine its effects on OP.

Although the development of the EO progressed considerably, empirical findings suggest that a significant determinant of EO is the organisation's ability to configure the optimal combination of dynamic capabilities that moderate the EO-OP

relationship (Dong et al., 2020). Furthermore, diminutive literature exists that examines whether EO, through the theoretical lens of dynamic capabilities, will improve OP (Eshima & Anderson, 2017), when dynamically combined with other organisational capabilities that moderate OP (Wang et al., 2017).

Through the theoretical lens of dynamic capabilities, the EO-OP relationship is dependent on three of the organisation's capabilities (Xing et al., 2020). Firstly, an EO organisation should be strategically sensitive to the shifts, and changes in turbulent environments such that it can identify new opportunities (Niemand et al., in press). Secondly, an EO organisation should obtain the collective commitment of all stakeholders involved as this creates alignment, which generates momentum toward the new opportunity (Ferreira et al., 2020). Lastly, EO organisations should exhibit resource fluidity which enables the organisation to seamlessly reconfigure its resources such that it can transform its business models to capture the value created from this new opportunity (Wang et al., 2020).

SA, which is a dynamic meta-capability that comprises of the combination of the strategic sensitivity, collective commitment, resource fluidity capabilities, improves OP (Fourné et al., 2014). However, the SA-OP relationship is also contingent, which means that its relationship is dependent on internal or external factors (e Cunha et al., 2020). Furthermore, SA is as an organisational outcome (Doz, 2020). This notion suggests that the strength of which SA positively influences OP is optimised when SA combines with other organisational capabilities that support an organisation's entrepreneurial activities (Eshima & Anderson, 2017). Therefore, an enhanced understanding of the reconceptualization of EO as a dynamic capability that when combined with SA and its dimensions, improves OP would advance research into both EO and SA.

In summary, scholars have suggested EO as a potential solution to stimulate growth for existing organisations operating in turbulent environments (Dong et al., 2020; Núñez-Pomar et al., 2016; Shan et al., 2016; Wang et al., 2017). However, EO is only half of the equation as its relationship to OP is contingent (Hughes & Morgan, 2007; Lechner & Gudmundsson, 2014). Consequently, scholars have suggested SA as a moderator of the EO-OP relationship (Xing et al., 2020), for the reason that it supports the EO-OP relationship through its dimensions of strategic sensitivity

(Niemand et al., in press), collective commitment (Ferreira et al., 2020), and resource fluidity (Wang et al., 2020). These dimensions enable organisations to maximise the benefit derived from pursuing new opportunities in turbulent environments (Battistella et al., 2017).

Therefore, an improved understanding of the moderating effects of SA on the EO-OP relationship would advance the research on the EO is terms of its conceptualisation as a DC that combines with other DCs to optimise OP (Eshima & Anderson, 2017). Similarly, an ameliorated understanding of SA as dynamic meta-capability that combines with other dynamic capabilities to improve OP in organisations that orientated toward entrepreneurial activity will advance research into SA (Kohtamäki et al., 2020; Xing et al., 2020).

1.5. Research Objectives

The objective of this research was to establish the extent to which SA, through its components of strategic sensitivity, collective commitment and resource fluidity, moderates the relationship between EO and OP. A statistical analysis which involved; firstly, assessing the individual relationships between EO, OP and SA; secondly, assessing the moderating effects of the dimensions of SA on the relationship between EO and OP; lastly, assessing the cumulative effect of the components of SA on the relationship between EO and OP were used to achieve this objective.

1.6. Scope of the Research

The scope of this research was limited to organisations registered in South Africa and was not constrained to a specific industry as the constructs under investigation are common across industries. However, the scope of the research was limited to small and medium enterprises, and corporate enterprises as literature have highlighted that EO has an inverse relationship to OP for start-up and micro-enterprises (Su, Xie, & Li, 2011). Furthermore, the scope of the research was limited to senior or executive, middle, and junior organisational levels as literature have illustrated that EO is present across these different organisational levels.

1.7. Outline of the Document

Chapter 2: presents the literature reviewed and describes the definitions, development, dimensions, and relationship of each of the constructs.

Chapter 3: presents the research objectives, conceptual model, hypotheses, and the relationships between the constructs.

Chapter 4: presents the choice of methodology and research design adopted to acquire the data and analyse the results of this descriptive study.

Chapter 5: presents a description of the sample obtained, results on the validity and reliability of the data, data transformations, and statistical results per hypothesis.

Chapter 6: presents an analysis of the results and a discussion of each of the results organised per each hypothesis.

Chapter 7: presents the implications of the research on academia and business as well as the limitations and recommendations.

1.8. Conclusion

This chapter discussed the research problem and the theoretical and business relevance of the research. It also discussed the scope of the research, the research purpose and outlined the chapters that follow. The next chapter examines the literature relating to the constructs that were investigated and describes its development, definitions, dimensions, and relationships.

CHAPTER 2

LITERATURE REVIEW

2.1. Introduction

Chapter two provides a review of the literature by examining the definition of EO, the descriptions of the dimensions of EO and a chronological review of the development of EO. Furthermore, it examines that definition of SA, the descriptions of the dimensions of SA and a thematic review of the development of SA. Additionally, it examines the definition of OP, the relationships between EO-OP and SA-OP and provides a discussion on the relationships between EO, SA and OP. Finally, it examines that definition of DC and provides a discussion on the relationship between SA and EO, through the theoretical lens of DC.

2.2. Entrepreneurial Orientation

EO is a significant construct within the field of management, entrepreneurship, and strategy. Over the past four decades, this construct has received substantial attention from scholars in an effort to explain how specific organisations stimulate growth and develop a superior competitive advantage (Chen, Lin, & Tsai, 2020). The subsequent sections define EO, describes the dimensions of EO, chronologically reviews the development of EO as a construct, and discusses its relationship to OP.

2.2.1. Definition of Entrepreneurial Orientation

Mintzberg (1973) established EO as a unidimensional, phenomenon-focused construct, which is a managerial disposition grounded in decision making. He conceived that EO composed of three dimensions which were innovativeness, risk-taking and proactiveness and that this must positively covary in order for EO to manifest as a collection of organisational behaviours, a position that was widely accepted by scholars in subsequent research (Covin & Slevin, 1989; Covin & Wales, 2012; Miller & Friesen, 1982). However, Lumpkin and Dess (1996) contested this view and defined EO as a multidimensional, organisational-level phenomenon

involving critical decisions made by an individual on behalf of the organisation. They extended the discourse by asserting that EO is more domain-focused and thus should include the dimensions include autonomy and competitive aggressiveness, which is also a view that is widely adopted by scholars in subsequent research (Covin & Wales, 2012; Edmond & Wiklund, 2010; Hughes & Morgan, 2007; Wales, 2016).

Furthermore, in a study aiming to understand the nomological errors in EO literature, Anderson, Kreiser, Kuratko, Hornsby and Eshima (2015) defined "EO as a second-order, firm-level construct comprised of two lower-order dimensions: *entrepreneurial behaviours* (encompassing innovativeness and proactiveness), and *managerial attitude toward risk* (risk-taking)" (p. 1583). Additionally, Wales (2016) supported this view and postulated that the totality of the dimensions represents (Anderson et al., 2015) reconceptualisation of EO. Wales (2016) positioned the importance of modelling multi-level relationships to understand how EO manifests across the organisation and suggested that it adds to the calls for new EO indicators that offers scholars new pathways to extend EO research.

Finally, Covin and Wales (2019) defined EO as an "*attribute of an organization that exists to the degree to which that organization supports and exhibits a sustained pattern of entrepreneurial behavior reflecting incidents of proactive new entry*. Here, the phrase new entry is used in reference to product, service, technological, market, or business model innovation" (p. 5). This notion suggests that in addition to supporting the influence of EO on OP in the context of SMEs, that EO can be generalised to corporate enterprises as EO is exhibited at different levels of an organisation and across SMEs and CEs. Therefore, in the context of this study, EO is defined as an organisational attribute that exists to support that organisations sustained pattern of entrepreneurial activity.

2.2.2. Description of Dimensions of Entrepreneurial Orientation

Risk-Taking

Risk-taking is committing either or both financial and non-financial resources to the organisation's pursuit of new opportunities or ventures into the unknown, without having any clear indication of the return of investment (ROI) (Alonso-Dos-Santos &

Llanos-Contreras, 2019). Although this may result in short-term losses, the risk taken is in the organisation's pursuit of organisational growth and, if successful, would result in improved OP over the long-term (Rauch et al., 2009). However, Calic and Shevchenko (2020) disputed this view by arguing that "many positive aspects of entrepreneurial orientation, when taken beyond certain thresholds, may be interpreted as negative qualities" (p. 205). This notion affirms that organisations that take too many risks in the pursuit of new opportunities for organisational growth may be perceived reckless if the risks to rewards ratios are not aligned (Rauch et al., 2009), thus, resulting in a negative impact on OP, over both the short and long-terms (Wales, 2016).

Innovativeness

An organisations support of the pursuit of new opportunities through new ideas, creativity, experimentation, newness or improvements to processes and products is considered innovativeness (Lumpkin & Dess, 1996). It can take many different forms between organisations, such as through technology innovation or product innovation, which leads to the uniqueness of the organisation's resources (Chen et al., 2020). However, Bernoster, Mukerjee, and Thurik (2020) insinuated that organisations must develop their capabilities to support and foster their innovativeness as this leads to an improved OP through innovation. Although Bernoster et al. (2020) views are different from Lumpkin and Dess (1996), in terms of the antecedents of innovativeness, both agree that if organisations support innovativeness that it will enhance OP.

Proactiveness

Through the lens of EO, proactiveness is the forward-looking, action-orientated characteristic that prevails in an EO organisation (Wiklund & Shepherd, 2003). It is the organisation's ability to capitalise, by exploring and exploiting, new opportunities in the market in order to generate future gains; and to act swiftly and decisively such that it gains the 'first mover' advantage over its competitors (Wiklund & Shepherd, 2005). Additionally, proactiveness requires the entrepreneur to be in a constant state of 'alertness' such that they are strategically sensitive to changes in the market (Guzmán, Santos, & Barroso, 2020). Therefore, proactiveness is considered an

entrepreneurial behavioural trait that manifests in individuals across different levels of an organisation (Covin & Wales, 2019).

Competitive Aggressiveness

Lumpkin and Dess (1996) asserted that the organisation's competitive aggressiveness refers to "firm's propensity to directly and intensely challenge its competitors to achieve entry or improve position, that is, to outperform industry rivals in the marketplace" (p.148). Furthermore, competitive aggressiveness is a measure of the organisation's ability to respond to trends as well as how the organisation relates to its competitors (Dimitratos et al., 2004). However, in the context of turbulent markets, competitive aggressiveness can also be considered as a measure of an organisations ability to reconfigure itself to respond to threats from competitors that may jeopardise its survivability (Engelen et al., 2014). As a result, the organisation's external innovativeness improves, which supports OP (Donbesuur et al., 2020).

Autonomy

Autonomy refers to the individual's ability to make independent decisions in a manner in which he/or she is unbound from the organisational constraints that may exist (Deligianni, Dimitratos, Petrou, & Aharoni, 2016). It was based on the notion of independence in developing and launching an idea (Lumpkin, Wales, & Ensley, 2006). However, while greater autonomy supports OP, it is not a necessary condition to improve OP (Watson, Dada, Wright, & Perrigot, 2019). Therefore, this notion infers that the level of autonomy can be granted to the different levels across an organisation and that it should be aligned with the combination of capabilities in pursuit of the new opportunity (Dong et al., 2020).

2.2.3. Review of the Development of Entrepreneurial Orientation

The conceptualisation of EO can be traced back to the works of Mintzberg (1973) who argued that "Strategy moves forward in the entrepreneurial organization by the taking of large, bold decisions" (p. 45). Miller and Friesen (1982) built on this premise by asserting that EO applies to organisations that innovate boldly whilst taking considerable risks. Miller (1983) developed this notion by suggesting that EO engages with product-market innovation, understands risky adventures and is first to

come up with proactive innovations. Morris and Paul (1987) affirmed this conception whilst providing the view that EO is the organisation's decision-making norms that emphasise proactive, innovative strategies that include a degree of risk. Finally, Covin and Slevin (1989) conceptualised a unidimensional view of EO and developed a scale to assess EO by using the three constructs of innovativeness, risk-taking and proactiveness postulated by Miller (1983).

Covin and Slevin (1989) argued that the EO-OP relationship is contingent. This conceptualisation means that the EO-OP relationship is dependent on external or internal factors, which paved the way for the stream of research that focused on the factors that affect the EO-OP relationship.

Entrepreneurial Orientation between 1990 and 1999

The exploration of the EO construct conducted in the 1980s primarily focused on defining EO, its dimensions and its relationship to OP (Miller, 1983; Miller & Friesen, 1982; Morris & Paul, 1987). These studies postulated that the strength of the EO-OP relationship is contingent (Covin & Slevin, 1989). In the 1990s, scholars attempted to explain this phenomenon. Therefore, the scholarly focus shifted toward understanding the influence of external factors that moderate the EO-OP relationship, as well as refining the dimensions of the EO construct.

Firstly, Hart (1992) disputed Covin and Slevin (1989) conceptualisation of EO and argued that under certain conditions, EO could negatively influence OP. Smart and Conant (1994) supported Hart (1992) hypotheses, using the measurement instruments developed by Covin and Slevin (1989), and was unable to find a significant relationship between EO-OP. Thereafter, in a taxonomic investigation of the EO-OP relationship, Zahra (1993), whilst acknowledging various advantages of the conceptualisation of EO by Covin and Slevin (1989), disputed its unidimensional nature and suggested that the notion of EO is multidimensional and that the external environment is an antecedent to the EO-OP relationship.

Consequently, Zahra and Covin (1995), in a longitudinal analysis, then explored the notion that EO is a multidimensional construct, and found that EO has a positive impact on OP. However, this impact tends to be modest over the short-to-medium

term, whilst enabling a superior competitive advantage for the organisation over the longer term. Lumpkin and Dess (1996) entered the discourse by supporting the multidimensional view postulated by (Zahra & Covin, 1995). However, Lumpkin and Dess (1996) claimed that EO consists of five dimensions, with autonomy and competitive aggressiveness added to the original three of innovativeness, proactiveness and risk-taking suggested by (Covin & Slevin, 1989; Miller, 1983).

Additionally, Lumpkin and Dess (1996) suggested that EO is context-specific, as the internal and external factors moderate the EO-OP relationship. Subsequently, Knight (1997) endorsed Lumpkin and Dess (1996) conceptualisation of EO and advocated that the five dimensions of EO apply to any organisation, regardless of its size and type, especially under shifting external conditions. Knight (1997) explained that EO is fundamentally essential for organisations to stimulate performance and is a vital element in achieving a superior competitive advantage.

Lastly, in a study that investigated the sustainability of the EO-OP relationship, Wiklund (1999) validated Knight (1997) notion of the universal applicability of the EO construct by using data from Swedish organisations. Wiklund (1999) found a positive relationship between EO and OP and that the strength of this relationship increased over time. Furthermore, Wiklund (1999) emphasised that EO could achieve long-term organisational benefits and recommended that scholars explore the internal factors that moderate the EO-OP relationship.

In summary, EO as a construct developed from three unidimensional dimensions, which are risk-taking, innovativeness, proactiveness, which means that all three dimensions need to be present for EO to exist (Covin & Slevin, 1989), to five dimensions with competitive aggressiveness, and autonomy added (Lumpkin & Dess, 1996). Additionally, Lumpkin and Dess (1996) advocated that the five dimensions of EO are multidimensional, which means that any combination of the five dimensions must be present for EO to exist (Zahra, 1993). Furthermore, empirical findings expanded the notion of EOs applicability across organisational types and sizes (Knight, 1997), and across cultural contexts (Wiklund, 1999). Lastly, the benefits derived from EO in the short-term are modest, whereas it creates a superior competitive advantage in the long-term (Zahra & Covin, 1995). However,

this notion implies a deficit in the speed of which new opportunities are identified and acted upon in shifting market conditions.

Entrepreneurial Orientation between 2000 and 2009

A proportion of the research in the 1990s concentrated on explaining the influence of the external environment on the EO-OP relationship (Knight, 1997; Wiklund, 1999), as well as the multidimensionality of the EO construct (Lumpkin & Dess, 1996; Zahra, 1993; Zahra & Covin, 1995).

In the early 2000s, Ireland, Hitt, and Sirmon (2003) argued that “small entrepreneurial ventures are effective in identifying opportunities but are less successful in developing competitive advantages. In contrast, large, established firms often are relatively more effective in establishing competitive advantages but are less able to identify new opportunities.” (p. 963). Based on this notion, Ireland et al. (2003) postulated that it is vital for organisations to embed EO into their strategic processes such that the benefits that EO provides to SME’s can be replicated to CEs. However, Covin, Green and Slevin (2005) challenged this notion by asserting that EO “seem to benefit in a growth-facilitating sense from a strategic process that is relatively autocratic in nature.” (p. K5). This notion explicated that organisations that embed EO into their strategic processes weaken the EO-OP relationship as organisations become more concerned with strategic consensus rather than narrowing their organisation's foci to realise economies of scope.

Concurrently, Wiklund and Shepherd (2003) studied EO from a different perspective and stated that “scholars have focused on a firm’s entrepreneurial strategic orientation (EO), leaving its interrelationship with internal characteristics aside.” (p. 1307) and called for scholars to focus their attention towards exploring the internal characteristics that moderate the EO and OP relationship. Wiklund and Shepherd (2003) argued that there is a positive relationship between the knowledge-based resources and OP and that EO is a vital element to how an organisation operates, as it enhances this relationship. Subsequently, in a study aimed at understanding the configuration models that influence the strength of the EO-OP relationship, Wiklund and Shepherd (2005) claimed that internal characteristics such as the organisation’s resources appear to be pertinent for driving an EO. This perception implies that

organisations should encourage experimentation to enable themselves to pursue new opportunities.

Jantunen, Puumalainen, Saarenketo and Kyläheiko (2005) advanced this notion with the posit that DC positively influences OP and that it enables organisations to sense and seize new opportunities. Furthermore, EO strengthens DC and OP relationship and constitutes a potential source of competitive advantage, especially in environments that are in a perpetual state of change. Additionally, Dess and Lumpkin (2005) contributed by exploring the role of EO in corporate entrepreneurship. Dess and Lumpkin (2005) stated that "EO refers to the strategy-making practices that businesses use to identify and launch corporate ventures. It represents a frame of mind and perspective about entrepreneurship that are reflected in a firm's ongoing processes and corporate culture" (p. 147). This conception infers that organisations need to build EO as a strategic capability in order to engage in successful corporate entrepreneurship.

Lastly, as the body of knowledge of EO expanded, Hughes and Morgan (2007) developed a scale to measure the individual dimensions of EO as well as the combinations of EO's elements via an amalgamated dimension. They argued that this scale would facilitate the testing of moderating effects on the EO and OP relationship. Furthermore, Rauch et al. (2009) compiled a meta-analysis of preceding literature and asserted that the correlation between EO with OP is robust, yet contingent. This view suggests that to optimise the configuration, scholars should examine additional moderators such that the organisation can achieve a superior OP.

In summary, in the early 2000s, the EO debate revolved around the embedding EO as a strategic capability, where Ireland et al. (2003) and Dess and Lumpkin (2005) advocated for embedding it as a strategic capability and argued that this would create a superior competitive advantage. Whilst Covin et al. (2005) advocated against embedding this as a strategic capability, and argued that it would distract organisations foci from the achieving economies of scope. This debate emphases the need for embedding EO as a strategic capability to create a superior competitive advantage, whilst addressing the challenge of obtaining a collective commitment from stakeholders to achieving the economies of scope associated with EO.

Simultaneously, although the EO-OP relationship remains contingent (Rauch et al., 2009), EO strengthens the DC-OP relationship (Jantunen et al., 2005), by influencing related DCs, such as the reconfiguration of resources, to pursue new opportunities (Wiklund & Shepherd, 2003; 2005). This notion suggests that an improvement in the ability of an organisation to be fluid in the deployment of its resources may improve the EO-OP relationship.

Entrepreneurial Orientation between 2010 and 2020

In the years between 2000 and 2009, scholars firmly focused on trying to understand the internal characteristics that influence the EO-OP relationship (Rauch et al., 2009). Studies focused on understanding how strategic processes affected the EO-OP relationship (Jantunen et al., 2005; Wiklund & Shepherd, 2005), whilst others focussed on exploring EO as a capability (Covin et al., 2005; Dess & Lumpkin, 2005).

Recently, EO literature has advanced through multiple lenses. Firstly, Edmond and Wiklund (2010) supported Rauch et al. (2009) notion that the correlation between EO with OP is robust, yet contingent and criticised scholars for modelling the EO-OP relationship in an oversimplified way. Edmond and Wiklund (2010) urged scholars to move away from testing the direct effects of the EO-OP relationship, toward more comprehensive research directed toward examining EO in different configurations and contexts.

In response to this notion, Covin and Lumpkin (2011) advocated that scholars extend the unit of analysis of EO by arguing that “EO is a strategic business unit (SBU) level phenomenon where the “unit” can range from a nondiversified small to medium-sized enterprise (SME) to a single business unit of a multibusiness firm” (p. 857). This notion was based on the premise that organisations engage in discrete acts of entrepreneurship at different organisational levels, without those acts rising the status of the organisation’s attributes. Wales et al. (2011) affirm this view by suggesting that the strategy and structure of the organisation enable EO to manifest at different levels in the organisation. Wales et al. (2011) postulated that the practical manifestation of EO at the corporate level, functional level and business unit level of

organisations is vital to improve OP and that if the strategic goals are not aligned, there would be a negative impact on OP.

Therefore, organisations can demonstrate entrepreneurial behaviour without being recognised as having EO (Covin & Lumpkin, 2011). Furthermore, Covin and Lumpkin (2011) posited that understanding EO through the lens of DC (Teece et al., 1997), would be the necessary means for understanding the enabling mechanisms for organisations to capitalise on entrepreneurial opportunities that result in a superior OP and competitive advantage(Wales et al., 2011).

Additionally, Boso et al. (2013) contributed by using data gathered from entrepreneurial firms in Ghana to extend the concept of EO to countries with developing economies. This contribution implies that, in addition to the generalisation of EO across different organisational levels (Covin & Lumpkin, 2011; Wales et al., 2011), EO is further extended across different geographies and economies (Boso et al., 2013).

These contributions advanced EO research, as Rauch et al. (2009) established a robust, yet a contingent relationship between EO and OP; Boso et al., (2013) and Wiklund (1999) established the universal applicability of EO across industries, geographies, economies and cultural contexts; And Covin and Lumpkin (2011) and Knight (1997) established the applicability of EO across different organisational sizes and organisational levels. All of these advancements provide the foundation for scholars to examine the mediating and moderating effects of factors, such that the best configuration can be determined.

Thereafter, Lechner and Gudmundsson (2014) conducted a study that tested the mediating influence of competitive strategy on the EO-OP relationship and found that an organisation should have one competitive strategy and that EO must be related to the strategic goals of the organisation. Lechner and Gudmundsson (2014) asserted that “EO needs to be developed over time through consistent investment in resources and thus, constitutes a long-term firm-level orientation.” (p. 53). Additionally, Brouthers, Nakos, & Dimitratos (2015) conducted a study that tested the moderating effects of strategic alliances on the EO-OP relationship and found that strategic alliances strengthen the EO-OP relationship. Brouthers et al. (2015)

stated “we suggested and found that SMEs possessing greater EO capabilities benefit more” (p. 1182) which reinforced the views of Dess and Lumpkin (2005), Covin et al. (2005) and Jantunen et al. (2005) in that organisations should develop EO as a capability

However, Engelen et al. (2014) stated that “The inward and outward-looking components of ACAP [absorptive capacity] improve an entrepreneurial firm’s ability to find and implement opportunities with strong risk using trial-and-error processes in turbulent markets” (p. 1363). Thus, introducing DC as an essential new theoretical lens that extant research on the EO–performance research. Shan et al. (2016) supported this view and postulated that the EO-OP relationship is not linear and that although the speed of innovation strengths the EO-OP relationship, that scholars should focus on other elements that increase the speed of new innovations to market.

Scholars called for the reconceptualisation of EO as a DC, such that organisations can reap the benefits of EO in the short-term (Brouthers et al. 2015; Lechner & Gudmundsson, 2014). However, others suggested that the dynamic nature of EO requires investigation into the organisational capability configurations that moderate the EO-OP relationship (Engelen et al., 2014; Shan et al., 2016). Subsequently, Wales (2016) synthesised the EO literature and supported the calls for scholars to investigate whether specific organisations resources and capabilities may enhance the EO-OP relationship; furthermore, Wales (2016) proposed that through the lens of DC that EO may give rise to organisations resources and capabilities.

Eshima and Anderson (2017) advanced the discussion by asserting that increased adaptive capability to market conditions, stimulates the EO in the organisation; therefore, it is a fundamental strategic level that enables the organisation to capitalise on an improved understanding of the market conditions. Eshima and Anderson (2017) argued that organisations recognise changes in market conditions and develop the capability to reconfigure its resources in a manner that enables the organisation to uncover new entrepreneurial opportunities for value creation, thus expanding their EO. Additionally, Covin and Wales (2019) asserted that “EO in itself is not the recipe for long-term organizational success, and the promotion of innovation and change as manifested in various forms of new entry is only half the challenge” (p. 11). Covin and Wales (2019) argued that the dynamism and change

associated with EO require organisations to have strategic flexibility and adaptability such that they can quickly respond to changes in the environment. Furthermore, organisations must build capabilities that enable them to adapt to new business models in response to new innovations (Covin & Wales, 2019).

Furthermore, Ferreira et al. (2020) suggested that the organisation's DC of the speed of knowledge dissemination through the organisation improves the EO-OP relationship. Ferreira et al. (2020) argued that an organisations ability to sense and explore opportunities in new markets and its ability to disseminate this knowledge rapidly, improves the organisation's collective commitment toward entrepreneurial activity, as and a result, improves EO. However, Wang et al. (2020) argued that "Entrepreneurially orientated managers are more comfortable with risk and less likely to focus on short-term gains. As a result, they are more likely to view value-creation activities as strategies for improving performance" (p. 158). This notion suggests organisations with high degrees of EO, in that its managers configure their resources toward entrepreneurial activity, tends to focus on value-creation as opposed to value-appropriation. Thus, EO and resource fluidity are complementary elements in the organisation's strategic emphases (Wang et al., 2020).

Niemand et al. (in press) challenged this notion and asserted that organisations must have EO and demonstrate strategic sensitivity, as this improves its digitalisation efforts, thus improving OP. However, organisations from industries such as the financial sector, generally outsource its IT resources and thus does not need to build this capability, but instead enable resource fluidity to achieve the organisation's goals(Niemand et al., in press). Additionally, Covin et al. (2020) stated that "A particular concern is the fact that viewing EO solely as a firm or business unit construct neglects that, as an orientation, EO may manifest (and perhaps necessarily so) at other levels of analysis, and this more holistic view of EO is needed to adequately explain its effects on performance" (p. 1). This notion suggests that in order to obtain an accurate reflection of the EO-OP relationship, EO must be considered across the lower and middle levels of organisations, in addition to top management (Covin et al., 2020).

Lastly, Xing et al. (2020) established a clear positive link between the moderating effects of SA on team EO and performance. Concurrently, Kohtamäki et al. (2020)

found that EO organisations that lacked focus in developing the dynamic capabilities that enable it to be strategically agile limits its potential to create a superior competitive advantage. This notion proposes that SA moderates the EO-OP relationship.

In summary, the recent literature advanced the notion of EO to be applicable across different contexts (Boso et al., 2013), across different types of organisations (Covin & Lumpkin, 2011) and different levels within organisations (Covin et al., 2020; Wales et al., 2011). Additionally, Brouthers et al. (2015) and Lechner and Gudmundsson (2014) postulated EO as an organisation's DC. However, Engelen et al. (2014) and Shan et al. (2016) contested this notion by arguing that the EO-OP relationship is optimised when an organisation has configured its inter-related DCs in a complementary manner. Building on the premise that the organisations DCs must be configured in a complementary yet interrelated manner in order to improve the EO-OP relationship, the organisation must take a strategic view, yet remain flexible, adaptable and nimble, such that it can develop the emerging capabilities that complement EO (Eshima & Anderson, 2017; Wales, 2016).

Furthermore, scholars postulated strategic sensitivity(Niemand et al., in press), collective commitment (Ferreira et al., 2020), and resource fluidity (Wang et al., 2020) as the possible combination of capabilities that would improve the EO-OP relationship in turbulent market conditions (Covin & Wales, 2019). In addition, Xing et al. (2020) called for scholars to investigate the moderating effects of SA on the EO-OP relationship, such that empirical data that supports or disputes the notion that SA moderates the EO-OP relationship.

2.3. Strategic Agility

SA is a relatively new construct within the field of strategy and management studies. Over the past decade, this construct has received considerable attention from scholars in an effort to understand why some organisations perform better than others (Doz, 2020). The subsequent sections define SA, describes the dimensions of SA, thematically reviews the development of SA as a construct, and discusses its relationship to OP.

2.3.1. Definition of Strategic Agility

The concept of SA can be traced back to Roth (1996) who conceptualised SA as the "capability to produce the right products at the right place at the right time at the right price" (p. 30) and defined it as "achievable only with competitive strength in a combined set of generic capabilities, namely quality, delivery, flexibility and price leadership" (p. 30). However, Doz and Kosonen (2008) challenged Roth (1996) conceptualisation and this definition and argued that Roth (1996) notion is specific to the context of the manufacturing industry. After studying organisations from the technology industry, Doz and Kosonen, (2008) conceptualised SA as the organisation's ability to both "make strong strategic commitments and also have the awareness, the will, and the flexibility to change these commitments as needed" (p. 115). Additionally, Doz and Kosonen, (2008) defined SA as the organisation's strategic sensitivity, leadership unity (used interchangeably with collective commitment), and resource fluidity capabilities, that when combined, improves OP.

Fourné et al. (2014) extended this definition by stating that SA is "A meta-capability that creates and deploys a dynamic balance between sensing local opportunities, enacting global complementarities, and capturing local value over time" (p. 14). Fourné et al. (2014) argued that SA is a meta-capability that comprises of three dynamic capabilities (strategic sensitivity, collective commitment and resource fluidity) that when combined dynamically, improves OP. Doz (2020) refined this notion by stating that "Strategic agility has been defined as the ability to rediscover or review the organization and organization's strategy in a dynamic manner with rapid changes in the external business environment" (p. 1). Doz (2020) described SA as observable OP outcome that is a result of the manager's practices, behaviours, skills, values, and beliefs in both formulating and implementing strategic actions. Although the origins of SA can be traced back to the context of the manufacturing industry, Doz and Kosonen, (2008) conceptualisation and definition of SA have been more widely accepted by scholars as depicted in Table 1.

Table 1: Summary of Definitions of SA

Authors	Definition of SA
(Roth, 1996)	"Strategic agility – the capability to produce the right products at the right place at the right time at the right price. By definition, strategic agility is achievable only with competitive strength in a combined set of generic capabilities, namely quality, delivery, flexibility and price leadership" (p. 30).
(Weill, Subramani, & Broadbent, 2002)	"Strategic agility is defined by the set of business initiatives an enterprise can readily implement. Many elements contribute to agility, including customer base, brand, core competence, infrastructure and employees' ability to change. Organizing and coordinating those elements into an integrated group of resources results in an enterprise capability, which, if superior to that of competitors, becomes a distinctive competence" (p. 61).
(Morgan & Page, 2008)	"The key is agility, the ability to support and at times drive sudden direction changes to capitalize on changing market opportunities" (p. 156).
(Doz & Kosonen, 2008)	"Organizations can groom themselves to both make strong strategic commitments and also have the awareness, the will, and the flexibility to change these commitments as needed" (p. 115).
(Weber & Tarba, 2014)	"The ability to remain flexible in facing new developments, to continuously adjust the company's strategic direction, and to develop innovative ways to create value" (p. 5).
(Fourné et al., 2014)	"A meta-capability that creates and deploys a dynamic balance between sensing local opportunities, enacting global complementarities, and capturing local value over time" (p. 14)
(Battistella et al., 2017)	"The ability to dynamically revise or reinvent the company and its strategy, by adapting to unforeseen changes in the business environment, moving quickly and also, in an easy fashion" (p. 67)
(Kale et al., 2019)	"Strategic agility means the ability to, dynamically, review or rediscover the company and its strategy with changes in the business environment" (p. 278).
(Doz, 2020)	"Strategic agility has been defined as the ability to rediscover or review the organization and organization's strategy in a dynamic manner with rapid changes in the external business environment. …Strategic agility, as an observable organization performance outcome, results from the behaviors and skills of the organization's managers in taking and implementing strategic actions" (p. 1).

Source: Author (2020)

Table 1 summarises the definitions of SA from the extant literature and illustrates that scholars have more widely accepted Doz and Kosonen (2008) conceptualisation and definition of SA due to its generalisability across different organisational sizes and organisational levels. However, in the context of this study, SA is defined as a dynamic meta-capability that creates and deploys a dynamic balance between

sensing local opportunities, enacting global complementarities, and capturing local value over time.

2.3.2. Description of the Dimensions of Strategic Agility

Strategic Sensitivity

Strategic sensitivity is the organisation's intensity of attention, awareness and sharpness of perception in identifying the emerging trends and converging forces(Niemand et al., in press); and making sense of these strategic situations such they that can be leveraged for organisational benefit as they develop (Doz & Kosonen, 2010). This dimension comprises of sub-dimensions, referred to as micro-foundations (Teece, 2018; Xing et al., 2020), of which drive the organisation's strategic sensitivity capability as illustrated in Table 2.

Table 2: Description of the Strategic Sensitivity Dimension

Strategic Sensitivity	
Sub-Dimension	**Description**
Anticipating (Sharpening foresight)	Explore future usage concepts. Do not over-rely on foresight instruments (e.g. Scenario planning).
Experimenting (Gaining insight)	Conduct local experiments and in-market tests. Use use of corporate venturing strategically and reflectively.
Distancing (Gaining perspective)	Nurture an ‘outside-in’ perspective through a valuable network of personal contacts. Hear the voice of the periphery.
Abstracting (Gaining generality)	Restate business models in conceptual terms.
Reframing (Seeing the necessity for business model renewal)	Engage in honest, open, and rich dialogue around strategic issues.

Source: Adapted from (Doz & Kosonen, 2010) (p. 372)

Collective Commitment

Once the strategic situation is identified, analysed and made sense of, the leadership team should make decisions in a manner that enables the organisation to capitalise on the strategic situation (Ferreira et al., 2020). Therefore, collective commitment refers to the leadership team's ability to reduce the politics such that the leaders can make bold decisions fast as well as obtain the commitment from other involved stakeholders (Doz & Kosonen, 2010). This dimension comprises of sub-dimensions, referred to as micro-foundations (Teece, 2018; Xing et al., 2020), of which drive the organisation's collective commitment capability as depicted in Table 3.

Table 3*: *Description of the Collective Commitment Dimension

Collective Commitment	
Sub-Dimension	**Description**
Dialoguing (Surfacing and sharing assumptions, understanding contexts)	Explore the underlying assumptions and hypotheses, not just conclusions, developing common ground.
Revealing (Making personal motives and aspirations explicit)	Transparency and clarity of motives bring mutual respect and trust, and understanding of positions.
Integrating (Building interdependencies)	Define a valuable common agenda that primes success.
Aligning (Sharing a common interest)	Beyond incentives, give deeper common meanings.
Caring (Providing empathy and compassion)	Provide the personal safety necessary to be playful.

Source: Adapted from (Doz & Kosonen, 2010) (p. 372)

Resource Fluidity

Resource fluidity refers the organisation's ability to reconfigure its business systems and rapidly redeploy resources such that it can respond to the decisions taken from leadership team once they have made sense of the strategic situations (Doz & Kosonen, 2010; Wang et al., 2020). This dimension comprises of sub-dimensions, referred to as micro-foundations (Teece, 2018; Xing et al., 2020), of which drive the organisation's resource fluidity capability as depicted in Table 4.

Table 4*: *Description of the Resource Fluidity Dimension

Resource Fluidity	
Sub-Dimension	**Description**
Decoupling (Gaining flexibility)	Organise by customer/segmentation-based value domains.
Modularising (Assembling and disassembling business systems)	Develop 'plug and play' functionality for business processes and systems
Dissociating	Separating resource usage from resource ownership and negotiating resource access and allocation.
Switching (Using multiple business models)	Having different business model infrastructures concurrently and aligning and switching products between them.
Grafting (Acquiring to transform oneself)	Import a business model from the acquired company.

Source: Adapted from (Doz & Kosonen, 2010) (p. 372)

2.3.3. Review of the Development of Strategic Agility

Agility

In earlier research, Swafford, Ghosh and Murthy (2006) described agility as being associated with flexibility and asserted that agility is an externally focused capability, whereas flexibility, which is an internally focussed competence, is an essential antecedent to agility. Overby, Bharadwaj and Sambamurthy (2006) supported this view and added that agility is the organisation's unique market-sensing capability to explore and exploit opportunities that lead to superior competitive advantage, which is consistent with the understanding of agility as a dynamic capability (Teece et al., 1997). However, there are contrasting views around the concept of agility as Doz and Kosonen (2008) assert that, in addition to agility being a capability, that it is also a paradigm which may constitute of a group of capabilities. This notion is more consistent with Stigler (1939) original definition of agility, which was that agility could be characterised by two aspects, flexibility, which is concerned with tactical, short-term function, and adaptability, which is concerned with the long-term characteristic of the organisation.

This discourse was the foundation of which scholars used to establish four main streams of research into agility (Shin, Lee, Kim, & Rhim, 2015). The first is supply

chain agility which employs collaborative tactics and partnerships in the supply chain that leads to a superior competitive advantage (Braunscheidel & Suresh, 2009). The second is manufacturing agility which is an organisational capability that is driven by the dimensions of responsiveness, flexibility and speed (Inman, Sale, Green Jr, & Whitten, 2011). The third is organisational agility which encompasses two distinct concepts, namely market capitalising agility and operational adjustment agility (Lu & Ramamurthy, 2011). Lastly, is SA, which is the organisation's ability to develop strategic alternatives based on the dimensions of strategic sensitivity, leadership unity and collective commitment (Brannen & Doz, 2012). Although research into agility has recognised four main streams of research (Shin et al., 2015), the scope of this research was limited to SA due to its characteristics that are consistent with research problem and purpose.

The Conceptualisation of Strategic Agility

The term SA was first conceptualised by Roth (1996), who stated that “strategic agility – the capability to produce the right products at the right place at the right time at the right price. By definition, strategic agility is achievable only with competitive strength in a combined set of generic capabilities, namely quality, delivery, flexibility and price leadership” (p. 30). However, this conceptualisation is somewhat similar to Yusuf, Sarhadi and Gunasekaran (1999) conceptualisation of manufacturing agility, which is a system that is leveraged by capabilities. This conceptualisation was grounded in the manufacturing industry and lacked generalisability to other industries and contexts.

Weill et al. (2002) extended this view by asserting that many elements constitute to agility such as customer base, brand, infrastructure, employee’s ability to change and core competence. Weill et al. (2002) suggested that if these elements are organised and coordinated in a manner that is superior to its competitors, these elements become a distinctive competence. However, Morgan and Page (2008) challenged this view by postulating that SA is the organisation's ability to support and suddenly change direction when responding to changing market opportunities. Doz and Kosonen (2008) extended this notion by acknowledging the contradictory nature of being strategic (making decisions, based on the view of what the future may look like and holding commitments firm in achieving them, and agility) and being nimble

and flexible. Doz and Kosonen (2008) argued that in assessing both past and current decisions, organisations should be able to change direction in light of new developments.

Doz and Kosonen (2008) conceptualised SA as organisations that develop the three capabilities of strategic sensitivity, resource fluidity and collective commitment, that enables them to make robust strategic commitments yet also possess the will and flexibility to modify these commitments as required. Scholars widely accepted this conceptualisation and definition of SA, which therefore became the foundation of which research into SA was built, albeit through different angles and lens.

Paradoxical Nature of Strategic Agility

Doz and Kosonen (2010) extended this notion of by asserting that organisations in pursuit of new opportunities may require a transformation of its business model such that it enables itself to reconfigure itself to support these new opportunities rapidly. Brannen and Doz (2012) supported this view and suggested that an organisation is strategically agile when they can develop strategic alternatives to the changing conditions. This notion implies that SA supports OP in organisations in pursuit of new opportunities in turbulent markets (Brannen & Doz, 2012; Doz & Kosonen, 2010). Lewis, Andriopoulos and Smith (2014) supported the view and suggested that whilst SA evokes paradoxes such as stability-flexibility, commitment-change, and established routines-novel approaches, that the leaders and managers should embrace the paradoxical thinking. This conception implies that once these paradoxes are understood and accepted by organisations, that they would be more likely to embrace its tensions and benefit from them.

Ivory and Brooks (2018) endorsed Lewis et al. (2014) view in that organisation's, particularly leadership and management, should embrace the paradoxical nature of SA. Ivory and Brooks (2018) insinuated that concepts such as strategic planning, resource-based view and sustainable competitive advantage had been highly critiqued for being too linear. Ivory and Brooks (2018) suggested that SA provides the dynamism that organisations require to sense and seize opportunities, given the rate and complexity of change. Additionally, Lewis et al. (2014) asserted that organisations should view SA as an unremitting balancing act as they concurrently

work through the organisations contending demands. Lewis et al. (2014) emphasised the importance of the balancing these three capabilities as they postulated that if a capability is focused on in isolation, that this may be detrimental to the organisation's performance, for example, "Excessive strategic planning raises the danger of inertia, as competitive advantages become entrenched, inhibiting responsiveness. Likewise, single-minded attention to change can frustrate the development of core capabilities that provide the foundation for adaptation and learning" (p. 59).

Furthermore, Weber and Tarba (2014) suggested that SA is not about one particular change, for example responding to a specific situation, but rather the organisation's ability to effectively shift its course of action in order to maintain a superior competitive advantage. Therefore, in order for organisations to cope with the pace of shifting external conditions and new market opportunities, that they need to become strategically agile organisations in that they continuously find news way of managing business transformation and renewal, develop dynamic capabilities and integration approaches (Weber & Tarba, 2014).

In summary, this contribution to SA body of knowledge suggested that organisations should embrace the paradoxical nature of SA, when they are in pursuit of a new opportunity, as this enables them to continuously and dynamically balance the capabilities that drive SA. Additionally, this enables the organisation to realise the benefits existing and new opportunities efficiently and effectively, which improves OP in environments of high complexity and uncertainty (Brannen & Doz, 2012; Doz & Kosonen, 2008; 2010; Ivory & Brooks, 2018; Lewis et al., 2014; Weber & Tarba, 2014).

Refining the Dimensions of Strategic Agility

Scholars have widely accepted the definitions of the strategic sensitivity, leadership unity (used interchangeably with collective commitment), and resource fluidity, dimensions (Shin et al., 2015). However, Brueller, Carmeli and Drori (2014) challenged Doz and Kosonen (2008) description of the leadership unity dimension by arguing that SA is about an organisations ability to shift its direction in response the new opportunities or threats in the market, without losing momentum. This notion requires organisations to obtain the commitment from all stakeholders involved and

develop this capability such that they are to acquire a superior competitive advantage.

Additionally, Brueller et al. (2014) suggested that for organisations to improve their performance and maintain a sustained competitive advantage that not only should the organisation demonstrate leadership unity, but it should also obtain the commitment from stakeholders across different levels of the organisation. Junni, Sarala, Tarba and Weber (2015) substantiated this view in broadening the leadership unity dimension to collective commitment by stating that “the ability to undertake fast and smooth transformations in the configuration of the firm, which can take place in different firm activities” (p. 599). This claim implies that a conscious effort from the organisation is required to obtain the collective commitment of stakeholders from different organisation levels as this leads to an improvement in the OP.

Furthermore, Fourné et al. (2014) argued that the three dimensions of SA are dynamic capabilities that when combined, over a sustained period, becomes a meta-capability. Fourné et al. (2014) defined SA as a “meta-capability that creates and deploys a dynamic balance between sensing local opportunities, enacting global complementarities, and capturing local value over time” (p. 14) and urged scholars to investigate how SA interacts with OP across different industries, economies and contexts.

In summary, this implies that the leadership unity dimension as conceptualised by Doz and Kosonen (2008) refers to the context of unity of top management with regards to strategic decisions. However, because this characteristic should be extended to other stakeholders across the organisations, collective commitment is suggested as a more suitable description of this dimension, due to its applicability to a broader organisational eco-system (Brueller et al., 2014; Junni et al., 2015). Therefore, in the context of this study, SA has been conceptualised as a dynamic meta-capability that comprises of three dynamic capabilities which are strategic sensitivity, collective commitment, and resource fluidity, which is consistent with Fourné et al. (2014) conceptualisation of SA.

Strategic Agility Across Different Industries, Economies and Contexts

Scholars have widely accepted that SA leads to a superior competitive advantage (Doz & Kosonen, 2008). However, although SA has been examined extensively in the information technology (IT) industry, with a particular focus on its relationship to OP (Weber & Tarba, 2014), scholars have emphasised the need to explore SA across different industries, economies, organisational sizes and organisational levels (Morton, Stacey, & Mohn, 2018). In response to these calls, using statistical techniques in a study involving SMEs from different industries, Shin et al. (2015) posited that SA could improve the organisation's financial performance, albeit with a lagging effect, whilst in comparison, the non-financial performance is realised at a much faster rate across different industries and economies.

Ahammad et al. (2020) extended the discourse by stating that SA, as a meta-capability, has shown positives effects on specific organisational capabilities such as technological capabilities, manufacturing capabilities and supply chain capabilities. However, the context remains a crucial challenge for advancing the notion of SA. For example, there is little understanding on other capabilities such as human capabilities, as well as the importance of SAs antecedents and how they interact across different levels of organisations, regardless of organisational size or level within the organisation (Doz, 2020).

However, e Cunha et al. (2020) contested this notion. They argued that when there are rapid changes to the context in which an organisation operates, for example, SMEs or CEs exploring new opportunities or responding to threats, that traditional sources of building generative change may not be enough for the organisation to sustain a competitive advantage. Therefore, the importance of leadership and management when extending the concept of SA across different types of organisations, as well as different organisational levels, are highlighted (Lewis et al., 2014).

Doz (2020) emphasised the role human resources managers in the development of the organisation's human capabilities as this is a driver of the three capabilities that give rise to SA, regardless of the organisational context. This notion infers that organisations should build human capabilities such that they can fluidly reconfigure

resources in a manner that enables the organisation to maximise the value derived from the new opportunity or to minimize the impact of the threat to the organisation (e Cunha et al., 2020).

In summary, SA has shown to improve OP in the technology industry (Doz & Kosonen, 2008) (Weber & Tarba, 2014) which sparked calls for scholars to investigate the strength of the SA-OP relationship across industries, economies, organisational sizes and organisational levels (Morton et al., 2018). Subsequently, SA has shown a positive relationship with OP across industries, economies, organisational sizes (Shin et al., 2015). However, although the notion that the SA-OP relationship remains strong across different contexts, for example across different organisational levels within CEs operating in turbulent environments (Doz, 2020) (e Cunha et al., 2020), there is little empirical evidence to support this notion(Ahammad et al., 2020).

2.4. Organisational Performance

2.4.1. Definition of Organisational Performance

There are many ways to define OP as it is used differently in different contexts. However, in academia, OP is generally used in the context of a dependent variable measuring the outcome of other interacting variables (Chen et al. 2020; Dimitratos et al., 2004; He & Wei, 2011; Jantunen et al., 2005). Chen et al. (2020) conceptualised OP as a subjective self-perceptual perspective that assesses the overall performance of the complex and diverse organisational goals, in terms of its operations. Furthermore, it has been defined as the organisation's self-perceived ability to achieve its objective in terms of its strategic (He & Wei, 2011) economic (Dimitratos et al., 2004), and operational goals (Jantunen et al., 2005).

2.4.2. Entrepreneurial Orientation and Organisational Performance

The seminal research into EO predominantly focused on the direct effects of EO on OP (Covin & Slevin, 1989). As the research into EO evolved, the focus shifted to factors that moderate the EO and OP relationship. In earlier EO research, a considerable focus went into understanding the external factors that moderate the

EO-OP (Engelen et al., 2014). For example, factors such as environmental turbulence (Becherer & Maurer, 1997), organisational flexibility (Barrett & Weinstein, 1998), environmental dynamism (Lumpkin & Dess, 2001) (Wiklund & Shepherd, 2005), domestic and foreign environment (Dimitratos et al., 2004), small business orientation (Runyan, Droge, & Swinney, 2008), and intra-and-extra-industry social capital (Stam & Elfring, 2008) were tested to understand its moderating effects on the EO-OP relationship.

These contributions significantly advanced the notion of EO as the key findings suggest that the EO-OP relationship is moderated when the organisation is established (Lumpkin et al., 2006), yet flexible (Barrett & Weinstein, 1998), as EO has an inverse relationship to OP for start-up organisations (Su et al., 2011), and operates in turbulent (Becherer & Maurer, 1997) (Lumpkin & Dess, 2001), and dynamic (Wiklund & Shepherd, 2005), domestic or foreign environments (Dimitratos et al., 2004).

As EO literature advanced, attention shifted to understanding the internal factors, that moderate the EO-OP relationship. For example, a keyword search for moderating variables on EO in EBSCOhost (a digital academic library) revealed 120 results for peer-reviewed articles over the past decade. It was not feasible to review all these articles within the time horizon; therefore, research on the internal factors that moderate the EO-OP relationship was summarised from journals ranking three or higher according to the Association of Business Schools (ABS) Academic Journal Quality Guide (Harzing, 2020) as presented in Table 5.

Table 5: Summary of Recent Studies Considering Moderating Variables in the EO-OP Relationship

Authors	Moderator Variables	Findings
(Engelen et al., 2014)	Absorptive capacity	"The inward and outward-looking components of ACAP improve an entrepreneurial firm's ability to find and implement opportunities with strong risk using trial-and-error processes in turbulent markets" (p. 1363).
(Lechner & Gudmundsson, 2014)	Organisational strategy	Firms "might exhibit different EO levels (on the individual dimensions) and consequently implement competitive strategies with a different EO configuration" (p. 52).

(Real, Roldán, & Leal, 2014)	Organisational learning Organisational size	"Entrepreneurial orientation seems to have a greater impact on organizational learning in the group of large firms" (p. 200). "SMEs are dominated by informal work-based learning as well as by oral and informal communication. This is because flexibility and adaptability are preferred to formal job descriptions and skills while the transmission of tacit knowledge is through ad hoc training" (p. 200).
(Brouthers et al., 2015)	Strategic alliances	"EO capabilities and participation in marketing alliances are both important in helping SMEs overcome the liabilities of foreignness they encounter when expanding to foreign markets and that the joint impact of these two factors can provide greater benefits to internationalizing SMEs" (p 1180).
(Patel et al., 2015)	Absorptive capacity	"Absorptive capacity enhances the effects of EO on variability in innovation outcomes, whereas realized absorptive capacity helps transform and exploit variability in innovation outcomes to enhance firm performance" (p. 1739).
(Su, Xie, & Wang, 2015)	Managerial networking	EO significantly contributes to new venture performance, political networking has a negative moderating effect on the relationship between EO and new venture performance, financial networking has an inverse U-shaped impact, and business networking has a positive one" (p. 243).
(Deligianni et al., 2016)	Decision-making rationality	"Entrepreneurial firms that pursue rational decision-making in strategic decisions are more likely to achieve enhanced IP than those following intuitive processes" (p. 472).
(Jiang, Yang, Pei, & Wang, 2016)	Strategic alliances	"Firms must depend on their own capabilities to create new knowledge to develop and maintain competitive advantage, no matter how high the leakage risk. We conclude that alliance entrepreneurs make relatively independent decisions about investing in internal knowledge creation activities" (p. 112).
(Núñez-Pomar et al., 2016)	Organisation size	"The results of this study show that neither the EO nor the firm size are necessary conditions for the success or non-success of the financial performance, considering both the ROI and the firm performance perception" (p. 5339).
(Swann, 2017)	Organisational integration	"EO may not be as directly impactful for public organizations. Rather, the advantages of an EO appear to be realized through integrative processes that result from an entrepreneurial perspective" (p. 557).

(Acosta, Crespo, & Agudo, 2018)	Network capability	"We find that the combination of specific strategic variables, such as International Entrepreneurial Orientation and Network Capability leads to superior results for export SMEs" (p. 1135).
(Jiang, Liu, Fey, & Jiang, 2018)	Network resource acquisition	"Our results suggest that the advantage to access and acquire valuable resources from network actors is an underlying mechanism by which EO contributes to firm performance" (p. 53).
(McGee & Peterson, 2019)	Entrepreneurial self-efficacy	"EO does not appear to influence the performance of very young firms. However, our results suggest such an orientation does positively influence performance as the firm matures. In fact, our results suggest that an EO's role may become more influential over time" (p. 732).
(Poudel et al., 2019)	Technology capability	"Technological capability is one of these intervening mechanisms for generating first mover advantage contingent on the ability of entrepreneurially oriented firms to develop technological capability as its core competency as well as its ability to shape consumer attitudes to match the characteristics of the pioneering entrant" (p. 287).
(Chen et al. 2020)	Strategic orientations	"The results reveal that EO allows firms to obtain a market knowledge advantage by developing greater knowledge creation within firms, furthering their opportunity exploitation efforts (international venturing and NPD [new product development] decision- making flexibility)" (p. 235).
(Donbesuur et al., 2020)	Entrepreneurial actions	"EO influences new venture performance by drawing on the tenets of social networking to argue that business network ties and institutional support seeking serve as complementary entrepreneurial actions that strengthen the effect of EO on new venture performance through the process of entrepreneurial opportunity discovery" (p. 156).
(Dong et al., 2020)	Trust	"Empirical results show that network range is positively related to firm performance and that EO strengthens the relationship between network range and firm performance. In addition, the findings also show that network range is most positively related to firm performance when the levels of EO and cognitive trust both are high" (p. 182).
(Guzmán et al., 2020)	Cooperative principles	"This research shows that the cooperative values and idiosyncrasies also strengthen entrepreneurial behaviour composed of innovation, proactivity, and risk-taking" (p. 1086).
(Sabahi & Parast, 2020)	Machine learning	"Based on the results of our case study, we showed that EO is important in any type of project, not just in entrepreneurship projects" (p.10).

Source: Author (2020)

In contemporary EO research, the focus shifted to understanding the internal factors, that moderate the EO-OP relationship, as illustrated in Table 11. For example, factors such as organisational strategy (Lechner & Gudmundsson, 2014), organisational learning (Real et al., 2014), organisational integration (Swann, 2017), organisation size (Núñez-Pomar et al., 2016; Real et al., 2014), strategic orientations (Chen et al. 2020), strategic alliances (Brouthers et al., 2015; Jiang, Yang, Pei, & Wang, 2016), managerial networking (Su, Xie, & Wang, 2015), network capability (Acosta, Crespo, & Agudo, 2018), network resource acquisition (Jiang, Liu, Fey, & Jiang, 2018), technology capability(Poudel et al., 2019), machine learning (Sabahi & Parast, 2020) absorptive capacity (Engelen et al., 2014) (Patel et al., 2015), entrepreneurial self-efficacy (McGee & Peterson, 2019), entrepreneurial actions (Donbesuur et al., 2020), decision-making rationality (Deligianni et al., 2016), trust (Dong et al., 2020), and cooperative principles (Guzmán et al., 2020) were tested with the aim of understanding its moderating effects on the EO-OP relationship.

These contributions expanded the concept of EO considerably as the key findings suggested that the EO-OP relationship is moderated when the organisation is continuously learning (Real et al., 2014), and effectively uses its capacity to absorb new knowledge (Engelen et al., 2014; Patel et al., 2015) to build strategic orientations and alliances (Brouthers et al., 2015; Jiang et al., 2016), regardless of the organisation's size (Núñez-Pomar et al., 2016; Real et al., 2014). Additionally, DCs such as a network (Acosta, Crespo, & Agudo, 2018; Guzmán et al., 2020; Jiang et al., 2018), technology (Poudel et al., 2019; Sabahi & Parast, 2020), integration (Swann, 2017), and decision-making (Deligianni et al., 2016) moderate the EO-OP relationship (Chen et al. 2020; McGee & Peterson, 2019).

In summary, literature has suggested that EO improves OP in flexible (Barrett & Weinstein, 1998) and adaptive (Real et al., 2014) established organisations (Lumpkin et al., 2006), operating in turbulent environments (Becherer & Maurer, 1997; Lumpkin & Dess, 2001; Wiklund & Shepherd, 2005), regardless of its size (Núñez-Pomar et al., 2016; Real et al., 2014). Literature has also suggested that organisations develop dynamic capabilities that support the EO-OP relationship (Acosta, Crespo, & Agudo, 2018; Guzmán et al., 2020; Jiang et al., 2018; Poudel et al., 2019; Sabahi & Parast, 2020; Swann, 2017; Deligianni et al., 2016; Chen et al. 2020; McGee & Peterson, 2019).

However, recently, EO has been conceptualised as DC that improves OP, at lower levels of the organisation (Xing et al., 2020). This notion suggests that the combination and configuration of DCs that are interrelated, complementary and support the dimensions of EO will moderate the EO-OP relationship (Wales, 2016).

2.4.3. Strategic Agility and Organisational Performance

Formative research into SA predominantly concentrated on the direct effects of SA on non-financial performance (Roth, 1996; Sambamurthy, Bharadwaj, & Grover, 2003; Weill et al., 2002). As research developed, SA was described as an observable outcome (Doz, 2020); therefore, the focus shifted to understanding the direct effects of SA on OP (Doz & Kosonen, 2008). This shift suggested that the SA-OP relationship is contingent (Inman, Sale, Green Jr, & Whitten, 2011) and that there is a lagging effect on financial performance, whereas the improvements in non-financial performance are rapidly realised (Shin et al., 2015).

In recent SA research, a considerable scholarly focus went into understanding the effects of SA on non-financial performance or, due to the lagging effects of the financial performance indicators, a combination of financial and non-financial performance. Table 6 presents, which is a review of the literature from journals ranking three or higher according to the ABS Academic Journal Quality Guide (Harzing, 2020) and is presented as a summary of the relationships between SA and different types of performance.

Table 6: Summary of Studies on the SA-OP Relationship

Authors	Type of Performance Relationship	Findings
(Roth, 1996)	Process performance	"with strategic agility, process performance is based upon the relative degree of mass personalization" (p. 32).
(Weill et al., 2002)	IT infrastructure performance	"enterprises with the highest degree of strategic agility had more services in each cluster and broader implementations of each service" (p. 62)

(Sambamurthy, Bharadwaj, & Grover, 2003)	IT performance	"our theoretical model points to the important role of three strategic processes that activate these dynamic capabilities and link them over time to shape the development of capabilities and the execution of competitive actions" (p. 255)
(Doz & Kosonen, 2010)	Financial performance Non-financial performance	"Strategic agility is most obviously a keystone to having the ability to transform and renew business models" (p. 381).
(Fourné et al., 2014)	New venture performance Competitive performance	"MNEs may develop and deploy sensing local opportunities, enacting global complementarities, and capturing local value in order to develop the strategic agility needed to survive and succeed within and across emerging and established markets" (p. 32).
(Shin et al., 2015)	Financial performance Non-financial performance	"The improved operational responsiveness synergizes the positive influence of strategic agility on customer retention" (p. 192). "it is likely to detect the potential lagged effect of strategic agility on financial performance" (p. 193).
(Junni, Sarala, Tarba, & Weber, 2015)	Knowledge transfer performance	"strategic agility in acquisitions is a dynamic organizational process that functions as a coordination mechanism in support of knowledge transfer" (p. 599).
(Battistella et al., 2017)	Financial performance Non-financial performance	"successful companies nurture specific capabilities in order to act proactively and to reach strategic agility and direct these to specific key elements of the business model (building blocks), thus enabling the renewing of the entire business model" (p. 65)
(Kale et al, 2019)	Competitive performance Absorptive capacity	"Firm performance increases when establishments respond to environmental and technological changes rapidly and adapt and change strategies quickly according to customer expectations and competitors' moves" (p. 281).
(Vaillant & Lafuente, 2019)	Financial performance Non-financial performance	"business owners demonstrating ambidextrous strategic agility are most likely to carry-through their international market expansion" (p. 251).
(Doz, 2020)	Individual performance	"Successful leader in a strategically agile company requires sustained and focused reflective attention and commitment to one's own and others' learning and development, and mindful discipline in management practice" (p. 12)
(e Cunha et al., 2020)	Process performance	"improvising around possibilities and selecting the best to travel to the corporate level may contribute to corporate renewal via "bottom-up relational processes" (p. 9).
(Kohtamäki et al., 2020)	New venture performance Absorptive capacity	"Efficient utilization of internal and external knowledge enables firms to develop ideas with attractive end-customer value and appropriate prices and to secure adequate profit margins for resellers and the focal company" (p. 22).
(Xing et al., 2020)	Entrepreneurial team orientation Team performance	"The nature of entrepreneurial context is associated with dynamics and speed that may complicate the plausible causal relationships. These propositions suggest the nuanced and complex relationships may exist beyond the scope of this current study" (p. 7).

Source: Author (2020)

Table 6 illustrates the focus that went into understanding the effects of SA on the different types of OP, for example, the effects of SA on process performance (Roth, 1996; e Cunha et al., 2020), technology performance (Weill et al., 2002; Sambamurthy, Bharadwaj, & Grover, 2003), competitive performance (Fourné et al., 2014; Kale et al. 2019), new venture performance (Fourné et al., 2014; Kohtamäki et al., 2020), knowledge transfer performance (Junni et al., 2015), team (Xing et al., 2020), individual performance (Doz, 2020) and the combination of financial and non-financial performance (Battistella et al., 2017; Doz & Kosonen, 2010; Shin et al., 2015; Vaillant & Lafuente, 2019) was explored such that a better understanding of the interaction between SA and OP could be achieved.

These contributions significantly advanced the notion of SA as the key findings suggested that SA improves OP through multiples perspectives. Firstly, the internal perspective is that SA improves OP through developing micro-foundational DCs (Teece, 2007) such as organisational processes (Roth, 1996; e Cunha et al., 2020), technology (Weill et al., 2002; Sambamurthy, Bharadwaj, & Grover, 2003), and knowledge transfer (Junni et al., 2015), between individuals (Doz, 2020) and teams (Xing et al., 2020).

Secondly, the external perspective suggested that SA improves OP through enhancing the competitiveness (Fourné et al., 2014; Kale et al. 2019) of new ventures in turbulent environments (Fourné et al., 2014; Kohtamäki et al., 2020). Lastly, the perspective that SA improves OP, albeit with a lagging effect on financial performance, regardless of whether the factors that influence this relationship resides internal or external to the organisation (Battistella et al., 2017; Doz & Kosonen, 2010; Shin et al., 2015; Vaillant & Lafuente, 2019).

In summary, literature has suggested that SA improves OP when organisations develop micro-foundational DCs that support its OP improvement endeavours (Teece, 2007; (Roth, 1996; e Cunha et al., 2020; Weill et al., 2002; Sambamurthy et al., 2003; Junni et al., 2015; Doz, 2020; Xing et al., 2020). Additionally, SA improves the financial and non-financial performance of organisations and enhances its competitiveness when pursuing new ventures in turbulent environments (Battistella et al., 2017; Doz & Kosonen, 2010; Fourné et al., 2014; Kale et al. 2019; Kohtamäki et al., 2020; Shin et al., 2015; Vaillant & Lafuente, 2019).

However, SA is a dynamic meta-capability of which relationship to OP is contingent (Inman et al., 2011). It comprises of three DCs that are interrelated, complementary and support the dimensions of EO (Kohtamäki et al., 2020). Additionally, when dynamically combined in turbulent environments, it improves OP for organisations in pursuit of new opportunities (Fourné et al., 2014). Therefore, SA is suggested to moderate the EO-OP relationship.

2.4.4. Discussion on Entrepreneurial Orientation, Strategic Agility and Organisational Performance

Inman et al. (2011) asserted that that agility positively impacts the organisations, operational performance and marketing performance. However, they argued that the agility and financial performance relationship is contingent. Tallon and Pinsonneault, 2011) suggested that many dimensions could be used to measure OP, however, due to its non-lagging effects, using the non-financial indicators of OP such as supplier relations, operations, product and service enhancement, marketing and sales support, and customer relations are suitable for studies involving the concept of SA. Shin et al., (2015) supported this view by asserting that when investigating the SA and financial performance relationship, financial indicators such as the return of investment or return on assets should not be measured in isolation and that other variables that must be considered to ensure the validity of any findings. This notion suggests that the although the EO and OP relationship is contingent that a moderating variable may improve either the financial or the non-financial dimensions, or both, of OP (Engelen et al., 2014).

2.5. Dynamic Capabilities

2.5.1. Definition of Dynamic Capabilities

The conceptualisation of DCs was traced back to Teece et al., (1997) who defined it as the organisations “ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments” (p. 516). This notion comprised of three generic, behaviourally-based dimensions of sensing opportunities and threats, seizing opportunities, and reconfiguring assets and structures to maintain competitiveness (Helfat & Peteraf, 2015).

However, Eisenhardt & Martin (2000) contested this definition of DCs and argued that DCs are “Dynamic capabilities thus are the organizational and strategic routines by which firms achieve new resource configurations as markets emerge, collide, split, evolve, and die” (p. 1107). This posit is somewhat restrictive in comparison to Teece et al. (1997), thus highlighting that there is a convergence of a new school of thought that is consistent with the premise that DC is applicable across two equally important layers, an operationally focused first layer and a strategically focused second layer (Helfat & Peteraf, 2015; Teece, 2018).

The notion of two distinct layers of DCs anchored this study. As a result, EO (Eshima & Anderson, 2017), strategic sensitivity(Niemand et al., in press), collective commitment (Ferreira et al., 2020) and resource fluidity (Wang et al., 2020) were operationalised as a dynamic capability, whilst SA was operationalised as a dynamic meta-capability(Fourné et al., 2014).

2.5.2. Dynamic Capabilities as a Theoretical Lens

Different types of organisations operating in different industries may have different organisational characteristics. However, across these organisations, DCs have consistently exhibited two distinctive layers (Teece, 2018). The first layer is a micro-foundational, ordinary capability layer that allows the organisation to adjust and reconfigure its resources efficiently and effectively such that it can pursue new opportunities and developments (Winter, 2003), and facilitate strategic change (Helfat & Peteraf, 2015). The second layer is a higher-order strategic capability layer that allows the organisation to sense and seize new opportunities or product developments, or pursue expansion opportunities (Teece, 2007), and is enabled by managerial cognitive capability (Helfat & Peteraf, 2015). Based on this premise, DCs are appropriate to anchor this study for five reasons.

Firstly, organisations in pursuit of new opportunities generally engage in entrepreneurial activity which improves OP (Covin & Wales, 2019). This notion refers to the risk-taking, innovativeness, proactiveness, competitive aggressiveness and autonomy dimensions of EO of which reside as part of the micro-foundational layer of DC, whereas, an organisation orientated toward entrepreneurial activity is a crucial DC that resides in the strategic layer and enables organisations to capture value from

these new opportunities (Swoboda & Olejnik, 2016). This notion suggests that when EO combines with other dynamic capabilities that support entrepreneurial activity, that EO-OP relationship is moderated (Eshima & Anderson, 2017).

Secondly, an organisation's intensity of attention, awareness and sharpness of perception in identifying the emerging trends and converging forces; and making sense of these strategic situations such that the organisation can capture value from new opportunities, referred to as strategic sensitivity, is an organisation's DC(Niemand et al., in press). This capability supports the EO-OP relationship as well as the sensing dimension of DC and resides as part of the micro-foundational layer of DC, which suggests that it may be configured across other micro-foundational DCs or with strategic layer DCs (Kohtamäki et al., 2020).

Thirdly, an organisations capacity to reduce politics and obtain the commitment from stakeholders involved in the pursuit of the new opportunity, referred to as collective commitment, is an organisation's DC (Doz & Kosonen, 2008). The capability supports the EO-OP relationship and resides as part of the micro-foundational layer of DC, which suggests that it may be configured across other micro-foundational DCs or with strategic layer DCs(Ferreira et al., 2020).

Fourthly, an organisation that facilitates a smooth business model transformation such that the organisation can seize the new opportunity efficiently and effectively, referred to as resource fluidity, is an organisations DC(Wang et al., 2020). The capability supports the EO-OP relationship as well as both the seizing and reconfiguring dimensions of DC and resides as part of the micro-foundational layer of DC, which suggests that it may be configured across other micro-foundational DCs or with strategic layer DCs (e Cunha et al., 2020).

Lastly, for organisations to maximise the value captured from new opportunities, it must combine the strategic sensitivity, collective commitment, and resource fluidity DCs such it supports the EO-OP relationship (Xing et al., 2020). These three DCs are also the three dimensions that form the construct of SA, which Fourné et al. (2014) described as "a meta-capability that creates and deploys a dynamic balance between sensing local opportunities, enacting global complementarities, and capturing local value over time" (p. 14). Therefore, in the context of this study, SA is

considered as a dynamic meta-capability that resides in the strategic layer of DC and comprises of the combination of three dynamic capabilities which are strategic sensitivity, collective commitment, and resource fluidity, of which reside in the micro-foundational layer of DC (Kohtamäki et al., 2020).

In summary, EO is considered as a dynamic capability that resides in the strategic layer of DC (Covin & Wales, 2019) (Swoboda & Olejnik, 2016). Furthermore, scholars have suggested that when the EO, as a dynamic capability, combines with other dynamic capabilities that support entrepreneurial activity, that EO-OP relationship is moderated (Eshima & Anderson, 2017). Additionally, there are three capabilities, strategic sensitivity(Niemand et al., in press), collective commitment(Ferreira et al., 2020), and resource fluidity(Wang et al., 2020), that reside in the micro-foundational layer of DC. Xing et al. (2020) suggested that these capabilities moderate the relationship between EO-OP. Furthermore, when these three DCs are combined dynamically, the dynamic meta-capability SA, which resides in the strategic layer of DC, is created (Fourné et al., 2014). Scholars have suggested that SA as a dynamic meta-capability that resides in the strategic layer of DC moderates the EO-OP relationship when dynamically combined with EO as a DC that resides in the strategic layer of DC (Doz, 2020; Kohtamäki et al., 2020).

2.6. Strategic Agility and Entrepreneurial Orientation

Kale et al. (2019) explored the role of SA, on the ACAP-OP relationship for organisations in pursuit of new opportunities in turbulent environments and found that organisations that utilise acquired external knowledge to adapt their external and internal strategies have seen their OP rapidly increase. (Kale et al. 2019) called for scholars to investigate how SA may influence other OP relationships that may be contingent. Concurrently, Vaillant and Lafuente (2019) argued that organisations that an orientated towards entrepreneurial activities actively seek our new opportunities, even more so, within the context of the ever-changing external environment. However, its propensity for efficiently and effectively seizing these new opportunities are low, as the organisation requires a degree of responsiveness and decisional accuracy of adaptive abilities. Vaillant and Lafuente (2019) postulated that the organisation should develop SA as a meta-capability as it would enable the integration of the entrepreneurial activities into the organisational eco-system, thus

enabling the organisation to rapidly respond and seize the full potential of the new opportunity.

Furthermore, Hagen et al. (2019) extended this view by contesting that SA is a dynamic meta-capability that aids the organisation in controlling the risk and uncertainty that is associated with entrepreneurial activity. Hagen et al. (2019) advocate that organisations in pursuit of new opportunities would benefit from SA as it, addresses the challenges in developing a new product or service offering, overcomes resource constraints, establishes collaboration, enables cooperation with partners and suppliers, and facilitates exploring or exploiting in customer-partner intensity which improves the speed to market for new products or services.

Additionally, Kohtamäki et al. (2020) suggested that organisations that orientated toward entrepreneurial activity, require SA as an enabler to become strategically sensitive to the customers changing needs which improves proactive idea generation, market-driven product commercialisation, and value-driven product development. Thus, improving OP and creating a superior competitive advantage.
Finally, Xing et al. (2020) contributed to the discourse by asserting that although scholars have extensively researched SA among SMEs, and CEs, there has been little focus on EO organisations as these organisations display different characteristics from traditional organisations. Xing et al. (2020) argued that when the dimensions of SA connect to the dimensions of team EO, team's performance improves which supports Kohtamäki et al. (2020) notion that SA moderates the relationship between EO-OP.

In summary, the role of SA was investigated, in conjunction with constructs demonstrating a contingent relationship with OP (Kale et al. 2019), and in organisations in pursuit of new opportunities in turbulent environments (Vaillant & Lafuente, 2019). It found that these organisations lacked focus in developing the dynamic capabilities that enable it to strategically sensing the market (Kohtamäki et al., 2020), obtaining the collective commitment for stakeholders involved, and to rapidly and smoothly reconfigure its resources to capture the value derived from these new opportunities (Hagen et al., 2019). Additionally, Xing et al. (2020) established a clear link between the effects of SA on team EO and performance, which sparked the calls for scholars to investigate the moderating effects of SA on

the relationship between EO-OP, such that empirical evidence that supports or disputes the notion that SA moderates the relation between EO-OP can be obtained (Kohtamäki et al., 2020)

2.7. Conclusion

Chapter two provided a review of the literature by examining the definition of EO, the descriptions of the dimensions of EO and a chronological review of the development of EO. Furthermore, it examined that definition of SA, the descriptions of the dimensions of SA and a thematic review of the development of SA. Additionally, it examined the definition of OP, the relationships between EO-OP and SA-OP and provided a discussion on the relationships between EO, SA and OP. Finally, it examined that definition of DC and provided a discussion on the relationship between SA and EO, through the theoretical lens of DC which explicated the need to test the moderating effects of SA on the relationship between EO and OP. The next chapter outlines the research hypotheses.

CHAPTER 3

RESEARCH HYPOTHESES

3.1. Introduction

This research intends to build on the existing literature as described in Chapter 2, in that it aims to investigate the moderating role of SA on the EO-OP relationship. Chapter 3 outlines the conceptual model that was developed and describes the research hypotheses.

3.2. Theoretical Model Development

Previous studies of EO determined that the EO-OP relationship is a positive one and that the strength of this relationship is dependent on various external and internal variables that are associated with it (Chen et al., 2020; Engelen et al., 2014; Ireland et al., 2003; Zahra & Covin, 1995). Therefore, an examination of the moderating variables that strengthen or weaken this relationship should aid in explaining this dependency and would provide further insights toward differentiating the moderating relationships (Rauch et al., 2009)

From existing research, we understand that the organisation's DCs moderate the contingent EO-OP relationship (Ferreira et al., 2020). Additionally, SA, which is an organisational meta-capability that positively influences OP (Fourné et al., 2014), also supports EO (Kohtamäki et al., 2020; Xing et al., 2020). This notion sparks the question of whether SA has a moderating effect on the relationship between EO-OP. The conceptual model in Figure 1 presents a graphical view of the proposed moderating role of SA on the relationship between EO-OP.

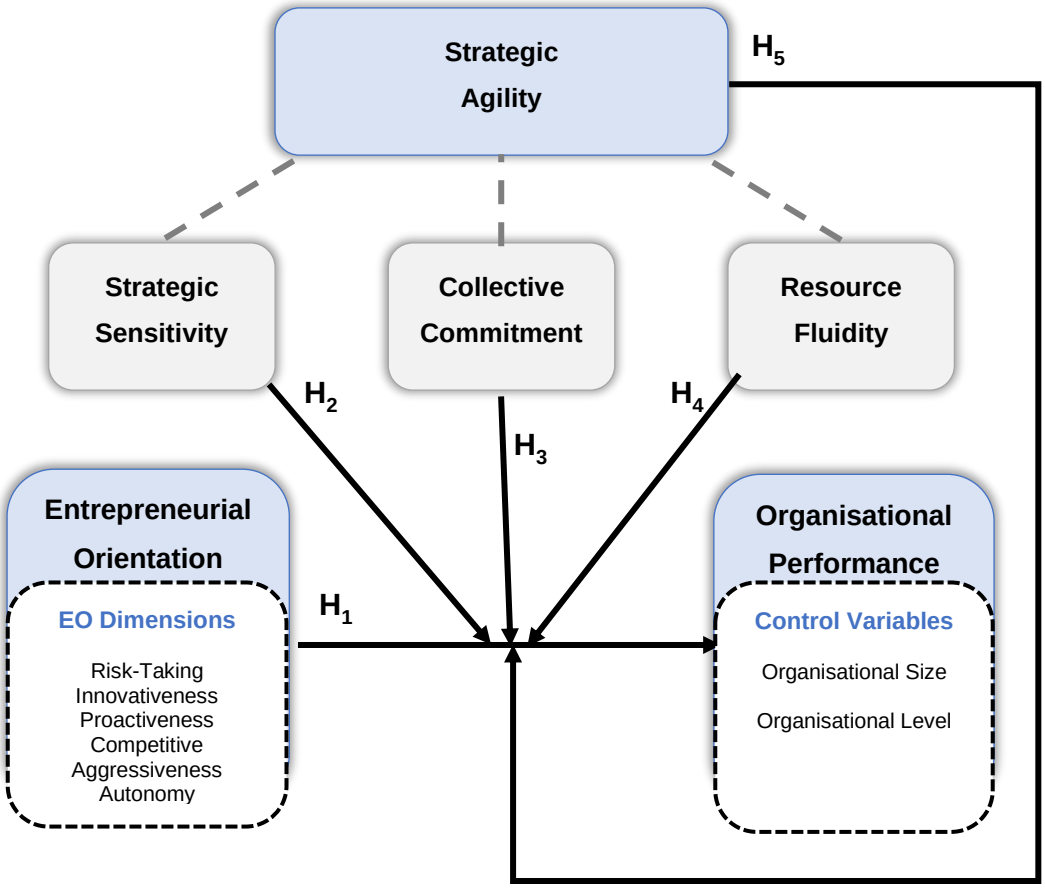

Figure 1: Theoretical Model Development

3.3. Hypotheses

3.3.1. Hypothesis 1

Organisations in pursuit of new opportunities generally engage in entrepreneurial activity which improves OP (Covin & Wales, 2019). This notion refers to the risk-taking, innovativeness, proactiveness, competitive aggressiveness and autonomy dimensions of EO of which reside as part of the micro-foundational layer of DC, whereas, an organisation orientated toward entrepreneurial activity is a crucial DC that resides in the strategic layer (Swoboda & Olejnik, 2016). This notion suggests that when EO combines with other dynamic capabilities that support entrepreneurial activity, that EO-OP relationship is moderated (Eshima & Anderson, 2017).

Therefore, the goal of hypothesis one was to test if the combination of micro-foundational DCs, namely risk-taking, innovativeness, proactiveness, competitive aggressiveness and autonomy successfully combine to form the strategic DC, EO such that EOs relationship with OP could be tested. Thus, hypothesis one was:

H_1: There is a relationship between EO and OP

H_0: There is no relationship between EO and OP

3.3.2. Hypothesis 2

Strategic sensitivity is an organisation's intensity of attention, awareness and sharpness of perception in identifying the emerging trends and converging forces; and making sense of these strategic situations such that the organisation can capture value from new opportunities(Niemand et al., in press). Strategic sensitivity resides as part of the micro-foundational layer of DC, which suggests that it may be configured across other micro-foundational DCs or with strategic layer DCs such that it could moderate the relationship between EO and OP (Kohtamäki et al., 2020).

Therefore, the goal of hypothesis two was to test if the combination of micro-foundational DC, strategic sensitivity successfully combines with the strategic layer DC, EO such that strategic sensitivities moderating effects on the relationship between EO and OP could be tested. Thus, hypothesis two was:

H_2: Strategic sensitivity moderates the relationship between EO and OP

H_0: Strategic sensitivity does not moderate the relationship between EO and OP

3.3.3. Hypothesis 3

Collective commitment is an organisations capacity to reduce politics and obtain the commitment from stakeholders involved in the pursuit of the new opportunity (Doz & Kosonen, 2008). Collective commitment resides as part of the micro-foundational layer of DC, which suggests that it may be configured across other micro-foundational DCs or with strategic layer DCs such that it could moderate the relationship between EO and OP(Ferreira et al., 2020).

Therefore, the goal of hypothesis three was to test if the combination of micro-foundational DC, collective commitment successfully combines with the strategic layer DC, EO such that collective commitment moderating effects on the relationship between EO and OP could be tested. Thus, hypothesis three was:

H_3: Collective commitment moderates the relationship between EO and OP

H_0: Collective commitment does not moderate the relationship between EO and OP

3.3.4. Hypothesis 4

Resource fluidity is an organisations ability to facilitate a smooth business model transformation such that the organisation can seize new opportunities efficiently and effectively(Wang et al., 2020). Resource fluidity resides as part of the micro-foundational layer of DC, which suggests that it may be configured across other micro-foundational DCs or with strategic layer DCs such that it could moderate the relationship between EO and OP (e Cunha et al., 2020).

Therefore, the goal of hypothesis four was to test if the combination of micro-foundational DC, resource fluidity successfully combines with the strategic layer DC, EO such that resource fluidities moderating effects on the relationship between EO and OP could be tested. Thus, hypothesis four was:

H_4: Resource fluidity moderates the relationship between EO and OP

H_0: Resource fluidity does not moderate the relationship between EO and OP

3.3.5. Hypothesis 5

SA is considered as a dynamic meta-capability that resides in the strategic layer of DC and comprises of the combination of three dynamic capabilities which are strategic sensitivity, collective commitment, and resource fluidity, of which reside in the micro-foundational layer of DC(Kohtamäki et al., 2020). For EO organisations to maximise the value captured from new opportunities, it must exhibit SA, as SA is suggested to moderate the relationship between EO and OP (Xing et al., 2020).

Therefore, the goal of hypothesis five was to test if the combination of strategic layer DC, SA combines with the strategic layer DC, EO such that SAs moderating effects on the relationship between EO and OP could be tested. Thus, hypothesis five was:

H_5: SA moderates the relationship between EO and OP

H_0: SA does not moderate the relationship between EO and OP

3.4. Conclusion

This chapter outlined the theoretical research model and described the research hypotheses. The next chapter will describe the choice of methodology and research design used for this descriptive research study.

CHAPTER 4

RESEARCH METHODOLOGY AND DESIGN

4.1. Introduction

Chapter 4 outlines the choice of methodology and research design. Additionally, it presents the approaches taken for the statistical analysis of the data as well as the descriptive statistics of the sample population. Furthermore, it presents the choice of statistical methods for testing the hypotheses outlined in chapter 3. Lastly, it provides a discussion on the limitations of this explanatory research study.

4.2. Research Methodology

4.2.1. Research Philosophy

The study's purpose was to develop a deep understanding of the influence of SA on the relationship between EO and OP. Based on this premise, the research philosophy of positivism guides this study (Johnston, 2014). Five philosophies such as criticism, interpretivism, postmodernism, pragmatism and positivism exist (Doyle, Brady, & Byrne, 2019). However, positivism was chosen as it attracts attention to the measurable phenomena with the expectation that the data collected will be objective to the formation of relationships internal to the data, thus enabling the evaluation of the relationships between EO, OP and SA (Leitch, Hill, & Harrison, 2010).

4.2.2. Research Approach

DC was the theoretical lens in which this study was directed and has been well-researched. This premise supported the selection of a deductive approach as opposed to the inductive approach, which aims to develop a new theory (Holmström, Ketokivi, & Hameri, 2009). This study intended to increase the degree of understanding of whether SA moderates the relationship between EO and OP in the business environment using this deductive approach. All three of these constructs have been subject to academic discussion in recent years have been tested in the

fields of strategy and entrepreneurship, with various research methodologies and models explored and explained (Engelen et al., 2014). Additionally, this research model consists of one independent variable (EO), one dependent variable (OP) and one moderator (SA), which informed the selection of the deductive approach to this study.

4.2.3. Purpose of Research Design

The research purpose of the study and its direction did not seek to explore the development of new theory; therefore, the exploratory approach cannot be used (McCusker & Gunaydin, 2019). The study intended to gather quantitative evidence of the association between three constructs to understand the nature of the relationship between them; therefore, a descripto-explanatory approach was selected (Roberts-Lombard & Petzer, 2018). This design guided the selection of statistical instruments used for describing and explaining the study's outcomes.

4.2.4. Methodological Choices

The study adopted a mono-method as the independent variable (SA), hypothesised to have a distinct and collective influence on the relationship between the independent variable (EO) and the dependent variable (OP), of which is characterised by the gathering of quantitative research data for statistical testing of the hypothesised relationships (Sharma, Yetton, & Crawford, 2009).

4.2.5. Research Strategy

The descripto-explanatory landscape of the study informed a structured survey research strategy (Roberts-Lombard & Petzer, 2018). This survey was in the form of an online self-administered questionnaire as this strategy was appropriate for a study of a standardised nature. Furthermore, in terms of structure, the data collection tool used in the survey permits similar data collection conditions to be experienced across the population that sampled as well as enabled a higher potential for reaching more respondents (by electronic means) in order to achieve a statistically significant sample size (McCusker & Gunaydin, 2019).

4.2.6. Research Time Horizon

Although the observation of a longitudinal time horizon would have permitted the apprehending of the evolutionary characteristics of the relationship between the constructs over a specified period, the limited time available for the completion of the study informed a cross-sectional time horizon (Rindfleisch, Malter, Ganesan, & Moorman, 2008). This cross-sectional study means that data collected from participants on the variables of the perceived moderating role of SA on the relationship between EO and OP was within a short space of time (6 weeks) and without consideration of the variance in the state of the relationship between the constructs over time (Doyle et al., 2019). Although the data came from multiple sources, apprehensions about potential bias in the dataset may arise, given the cross-sectional nature of the study (Donbesuur et al., 2020). Accordingly, statistical procedures to test for the presence of bias in the data was ensued.

4.3. Research Design

4.3.1. Population

SA is a dynamic meta-capability that is present across both SMEs and CEs; however, there is limited research to its effects on start-up organisations and micro-organisations as these types of organisations are in its infancy stages of developing this dynamic meta-capability (Doz, 2020; Fourné et al., 2014; Kohtamäki et al., 2020). Similarly, EO levels can differ substantially across different types of organisations, thus, expanding the EO concept to organisations other than SMEs for generalisability may strengthen the construct's value (Covin & Lumpkin, 2011; Covin & Wales, 2019; Watson et al., 2019). Therefore, the population relevant to this study comprised of organisations, which included both SMEs and CEs. The definitions of these organisation types were adopted from the Department of Small Business Development who described these in a revised schedule of the national definitions of small enterprises in South Africa as summarised in Table 7.

Table 7: Summary of Definitions of Organisational Types

Type	Size (Total full-time employees)
Micro	0-10
Small	11-50
Medium	51-250
Large	>250

Source: Adapted from Department of Small Business Development (2019)

The selection of these three organisational types increases the homogeneity of the population, which provided the critical benefit of consistency in the quality of the data collected (Doyle et al., 2019). Furthermore, the exclusion of the start-up and micro-organisations would ensure that the integrity of the findings would not be compromised (Covin et al., 2020).

4.3.2. Unit of Analysis

The unit of analysis for this study was at an organisational level; therefore, response data from the managers that represent the organisations were obtained. This selection is appropriate because managers from different organisational levels would have engaged in EO and SA when performing their duties, as both of these constructs are present across the different levels within organisations (e Cunha et al., 2020; Xing et al., 2020; Wang et al., 2020). However, managers new to their roles may not have been with the organisation long enough to observe the relationships and interactions of the constructs; therefore managers in their roles for less than one year were excluded from the study (Donbesuur et al., 2020). Additionally, employees at lowers levels of the organisation negated the impact of other moderating factors such as inexperience or unfamiliarity. Therefore, to ensure the integrity of the findings was not compromised, these employees were excluded.

In summary, similar studies Dong et al. (2020) and Xing et al. (2020) used in the selection of managers that represent the organisation. Therefore, this selection was suitable as the unit of analysis for this study because each response provided a data point which distinctively contributed to the understanding of the relationship between the constructs and the research problem (Donbesuur et al., 2020). The respondents

were assured of confidentiality, and the responses aggregated to perform the statistical analysis representing an organisational level response.

4.3.3. Sampling Method and Size

The Companies and Intellectual Property Commission (CIPC) was contacted via telephone in order to obtain access to their database, which contains the details of all companies registered in South Africa. Additionally, the Industrial Development Corporation (IDC) which is the national development finance institution that aims to promote industrial development in the manufacturing, electricity generation, mining, services and agriculture industries was contacted via telephone in order to obtain access to their database companies which contains the details of the companies that they have funded over the past 70 years.

Both the CIPC and IDC denied the requests for access to their databases, thus obtaining a complete list of the target population was not attainable within the time of this study. This constraint means that there was no target sampling frame at the inception of the study. Thus, probability sampling techniques were excluded, and non-probability sampling techniques were adopted.

Non-probability sampling techniques, require the broadest viable representation of the appropriate individuals because the study was based on individual perceptions and opinions of the state of the relationship between the EO, OP and SA constructs (Vehovar, Toepoel, & Steinmetz, 2016). Additionally, EO and SA are present in organisations across industries; thus, this study did not specify the organisation's industry as a qualifying criterion for the response to be included in the study.

Furthermore, purposive sampling was utilised which implies that judgement was exercised in selecting participants who fit the sampling criterion of which is for the participants to working in a management position, for more than one year, at a small, medium or large organisation. Thus, the use of statistical inference to generalise the finding to the larger population will be prohibited (Vehovar et al., 2016). In similar studies where the theory was tested deductively, samples of 111 (Chen et al. 2020),153(Shan et al., 2016), 162 (Brouthers et al., 2015) and 164(Poudel et al., 2019), participants were obtained which satisfied the requirement for statistical

significance. Therefore, the study aimed for approximately 40 responses per variable, at an estimated response rate of 25% (Deutskens, De Ruyter, Wetzels, & Oosterveld, 2004), which suggested that 120 participants would meet the requirements for statistical significance.

4.3.4. Measurement Instrument

The studies design revolved around a deductive approach; therefore, it drew on existing instruments designed for the individual constructs. The questionnaire comprised of a combination of different blocks of questions, grouped according to the constructs that being was measured, and operationalised using a Likert scale of one to seven (Maurer & Pierce, 1998). Preparation of a cover letter explaining the reason and purpose of the study, followed by the first block of eighteen items, using a Likert scale of one to seven, developed by (Hughes & Morgan, 2007), that aimed to measure EO. The second block of questions contained five items, using a Likert scale of one to seven, developed by (Tallon & Pinsonneault, 2011), that aimed at measuring OP. The last block of questions comprised of was nine items, using a Likert scale of one to seven, developed by (Hock, Clauss, & Schulz, 2016) that aimed to measure SA as presented in appendix 1. These instruments were appropriate to this study as although neither of the three instruments comprised of Cronbach alphas in an excellent range, they were all above the acceptable 0.65 range (Bonett & Wright, 2015) (p. 5), as presented in Table 8.

Table 8: Cronbach's Alpha for Selected Measurement Instruments

Type	Size (Total full-time employees)
(Hughes & Morgan, 2007)	0.70
(Tallon & Pinsonneault, 2011)	0.80
(Hock, Clauss, & Schulz, 2016)	0.70

Source: Author (2020)

Although these instruments comprised of Cronbach alphas that were above the acceptable threshold, these measure specific variables in specific contexts, thus, using confirmatory factor analysis (CFA), the validity of these instruments was tested

(Bonett & Wright, 2000), in conjunction with composite reliability tests to assess the reliability of the consolidated data collection instrument (Thompson, 2004).

4.4. Pilot Study

The questionnaire underwent a process of ethical consideration before its distribution. Once ethical clearance was received, as presented in appendix 2, the survey was pre-tested with managers representing ten organisations, chosen based on the speed and convenience of which they could provide feedback. Eight responses were received, with a request to add an ‘unemployed’ option to the third question of which was “where do you classify your role in the organisation?”. The change allowed the study to exclude the respondents that did not qualify. Consequently, the study removed the eight responses from the pre-test from the final count of the study.

4.5. Data Collection

The distribution channel used to deliver the self-administered online questionnaire was Google Forms. The survey tool was sent to individuals in the target population through media channels such as Email and WhatsApp. This choice of distribution channel negated the geographical and logistical limitations, that would have delayed the distribution of the questionnaire (Deutskens et al., 2004).

Although the IDC denied the request for access to their database, the contact person at the IDC agreed to distribute this survey to randomly selected organisations that met the target profile, within their database which formed part of wave one that targeted SMEs within the sample population. Wave one was distributed in September 2020. A list of 180 master’s in business administration (MBA) students that met the target profile for CEs was prepared from leveraging the researcher’s personal networks. A cover letter indicating that the survey would take approximately 20 minutes to complete was compiled, and the survey was then distributed in September as part of the second wave. In an effort to increase the number of responses, a reminder was sent out to prompt respondents approximately four weeks after being distributed. Furthermore, a third wave was introduced in October by was distributing the survey via LinkedIn, using snowballing techniques. The

results are presented in chapter 5. Lastly, the data collected from the survey was stored in Google Drive, which is a secure, password-protected, cloud-based storage service.

4.6. Data Analysis

4.6.1. Data Preparation

Data was collected using a Likert scale which renders it statistically classifiable as quantitative, numeric and discrete of interval quality (Wegner, 2016). The platform used to administer the online survey enabled the continuous data to be conveniently downloaded to Microsoft Excel (Excel) which means that the data captured on the survey platform was consolidated according to the listed questions and its associated responses. However, the Excel file contained both numeric values and string text and therefore had to be coded into numeric values to enable descriptive statistical analysis. For example, the Likert scale responses were presented with numeric values such as one equals very strongly disagree and seven equals very strongly agree, with the values between one and seven corresponding the options on the Likert scale. Concurrently, the categorical, ordinal data such as organisational size and organisational role were presented in string text and required coding to numeric values for statistical analysis. The coded raw data was then prepared by analysing all responses and removing participants that did not meet the qualifying criteria from the study, as presented in chapter 5.

4.6.2. Missing Data

A complete data set is a prerequisite for successfully executing various statistical computations, which means that there should be no missing values within the dataset being analysed (Blunch, 2012). However, the prepared dataset indicated that missing values were present. Therefore, further analysis into the type of missing data situation that was present was conducted as this guided the selection of the method that best dealt with the missing data records such that any biases introduced by ‘data filers’ was minimized (Olinsky, Chen, & Harlow, 2003).

The missing data identified in the dataset was an MCAR data situation (Schafer, 1999). Therefore, three methods for dealing with the missing data records were considered. Firstly, the mean substitution and group mean substitution methods which provide unbiased parameters were considered. However, this method reduces the variability as well as distorts the distributional characteristics of the data and was therefore not selected. Secondly, the imputation by regression method was not selected as although this method improves the variability in larger sample sizes; it reduces the variability in smaller sample sizes. Lastly, listwise deletion methods, which reduce bias by deleting the missing data records, was selected (Olinsky et al., 2003). Although this method is suitable for smaller sample sizes and will yield unbiased estimates, this method is recommended only when the missing data records constitute of less than 5% of the total data records (Schafer, 1999) (p.7) as presented in chapter 5.

After the missing values were dealt with, the prepared data set was then imported to IBM Statistical Package for Social Sciences (SPSS) version 26, where additional parameters for descriptive statistical analysis were configured. For example, the classification of variable types, data types and data labels were conducted as well as verifying that the software was set to a standard confidence level of 95%, this ensured that the software's parameters were aligned to the data set that was analysed (Blunch, 2012). Furthermore, the SPSS data set was imported to SPSS Analysis of a Moment Structures (AMOS) for statistical analysis.

4.7. Statistical Analysis

4.7.1. Normality

An underlying assumption for many statistical tests is that the data is normally distributed, this implies that the normality of the sample data is a function of the spread of data around the mean, which acts as an indicator of a central position (Cramer & Howitt, 2004). When the normality of data assumption is violated, the interpretations and inferences are rendered unreliable and invalid. There are three procedures commonly used to assess the normality of distribution of a dataset (Razali & Wah, 2011).

The first procedure involves using numerical methods to calculate the skewness (Bai & Ng, 2015) and kurtosis (DeCarlo, 1997) indices. An indicator that the data is normally distributed is when the Z-value, which is the statistic divided by the standard error, is within the -1.96 and 1.96 range. However, because these tests are hypersensitive to the sample size, a formal test of normality was also conducted (Field, 2013). The second procedure is a Shapiro-Wilk (SW) test for normality which is the preferred test for smaller sample sizes due to its statistical power properties and hypothesises that a distribution's deviation away from the mean is significant when $p < 0.05$. However, it is susceptible to error-inducing hypersensitivity, which increases the likelihood of reaching significance as the sample sizes become smaller (Razali & Wah, 2011). The last procedure was conducted to validate the SW tests was quantile-quantile (Q-Q) methods. The normal Q-Q plots graphically present the data in the form of a straight line by plotting the expected quantiles of the data set against the quantiles of the individual data points. An indication of normality is if the data points 'hug' the straight line (Field, 2013). The results are presented in chapter 5.

4.7.2. Outliers

The vertical boxplot test for outliers graphical represents the median by a line inside a box (Hoaglin & Iglewicz, 1987). Although this test helps identify outliers, the outliers still need to be handled in a manner that preserves the integrity of the results. Techniques such as trimming, which is deleting the outlying data from the data set, is more commonly used when dealing with large sample sizes. However, winsorising was the preferred method for smaller sample sizes as when the total number of winsorised data records is less than 5% of the data set; it leads to "asymptotically efficient estimators", which implies that the data is normally distributed (Davidov, Jelsema, & Peddada, 2018) (p. 916). The results are presented in chapter 5.

4.7.3. Validity

Although the scales selected for the measurement instrument are existing scales, these scales were developed under different conditions; therefore, they were validated for the context of this study. Confirmatory factor analysis (CFA) was used to conduct the tests for validity as it allowed for the correlations of the latent variables

and single indicators to be analysed (Brown, 2015). The sample size of 138 guided the choice of the partial least squares structural equation model (PLS-SEM) technique as the sample population is less than the required sample size of 200 for covariance-based structural equation model (CB-SEM) technique (Hair, Sarstedt, Ringle, & Mena, 2012). Although this technique requires a heterogeneous underlying population for larger sample sizes, it is robust with smaller, homogeneous sample sizes and also mitigates biases as indicated by the skewness of data (Hair, Sarstedt, Pieper, & Ringle, 2012).

The PLS-SEM technique tests each constructs convergent and discriminant validities. The first step in assessing convergent validity is to assess standardised loadings for each item from the outer model. Items below 0.70 reduced the validity of the constructs and should be removed such that convergent validity could be established (Hair et al. 2012). Once the standardised loadings for each item in the outer model was above 0.7, the average variance extracted (AVE) for each of the remaining items was calculated using the mathematical formula for AVE, expressed as:

$$\text{Average Variance Extracted (AVE)} = \frac{\sum(Standardised\ Loading^2)}{Number\ of\ Indicators}$$

The AVE values should be 0.50 or higher, which indicates that the variable explains more than half of the variance of its indicators (Hair Jr et al., 2014).

According to (Hair Jr et al., 2014) discriminant validity measures the extent to which each construct is different from the other constructs and that each construct measures what it intends to measure. Discriminant validity was tested using the Fornell-Larcker criterion which suggests that “each constructs squared root of the AVE should be compared to the squared inter-construct correlation (as a measure of shared variance) of that same construct and all other reflectively measure constructs in the structural model” (p. 112) and that the squared root AVE values should be higher than the squared inter-construct correlation of the same construct. The results are presented in chapter 5.

4.7.4. Reliability

The reliability of the model needed assessment as although the Cronbach alphas for each of the three measurement scales used were above the minimum 0.65 thresholds; these scales were developed using the exploratory factor analysis (EFA) methods (Bonett & Wright, 2015). Additionally, the Cronbach alpha method is sensitive to the number of items in the scale and generally tends to "underestimate internal consistency reliability" when applied in conjunction with CFA (Hair Jr et al., 2014) (p. 111).

Therefore, composite reliability (CR) was used to evaluate the construct measures' internal consistency reliability. This method paired better with CFA as, unlike the Cronbach alpha method, CR does not assume that all indicator loadings are equal in the population as well as it was able to accommodate for differences in the indicator loadings while avoiding the underestimation of internal consistency reliability associated with Cronbach's alpha (Hair Jr et al., 2014). The CR of each of the constructs were calculated using the mathematical formula for composite reliability, expressed as:

$$\text{Composite Reliability (CR)} = \frac{(\sum Standardised\ Loadings)^2}{(\sum Standardised\ Loadings)^2 + \sum(ME)}$$

$$\text{where Measurement Error (ME)} = 1 - (Standardised\ Loadings)^2$$

CR is acceptable when values are in the range between 0.60 and 0.70 and is considered as satisfactory or good when values are in the range between 0.70 and 0.90. However, values >0.95, are an indication that those items are redundant which reduces the validity of the constructs (Hair et al., 2019). The results are presented in chapter 5.

4.7.5. Model Fit

Once the validity and reliability of the model had been measured, the model fit was assessed. Model fit is an indication that the items measure what they intended to measure. However, there is no widely accepted method for determining a good fit for

data using the PLS method as this is mainly dependent on the sample size as well as the complexity of the structural model (Hulland, 1999). Therefore, the goodness of fit index (GFI), the adjusted goodness of fit index (AGFI), the normed fit index (NFI), the comparative fit index (CFI) and the root mean squared error of approximation (RMSEA) metrics were analysed in assessing the model fit (Hair et al., 2019). Although the chi-squared statistic provides a measure of the overall goodness of fit of the structural model, its value is susceptible to the sample size and is less accurate with sample sizes less than 200 (Bearden, Sharma, & Teel, 1982).

The GFI should be greater than > 0.70; however, a limitation is that this value tends to increase as more parameters are introduced into a model. Thus, this value should be compared with the AGFI of which should be relatively similar to the GFI values, except when the GFI values are inflated due to increased parameters, of which then the AGFI value would be lower, yet also greater than 0.70 (MacCallum & Hong, 1997). Similarly, both the NFI and CFI assessed the observed variations in the model and are less influenced by sample size and model complexity, additionally, it represents a satisfactory model fit when the indices are > 0.80. However, these indexes have smaller sampling variability, which may lead to an overestimated fit for smaller samples, despite the CFI outperforming other model fit indices (Dunham, Grube, & Castaneda, 1994).

Lastly, the RMSEA measure, which aims to understand how the structural model would interact with a population outside of the sample population, was used as it is an indication of how close the structural model is to reality and should be less than 0.08 (MacCallum, Browne, & Sugawara, 1996). The results are presented in chapter 5.

4.7.6. Dimension Reduction

Upon confirming the validity, reliability and model fit to the data, the remaining survey items were reduced into their respective dimensions and constructs using an oblique, direct oblimin rotated solution for the principle component analysis. In contrast, the varimax rotated solution is an orthogonal solution that forces the extraction of the factors to compose of the item that influences that item the most. Therefore, the direct oblimin rotated solution was selected as it allowed for the items to correlate when

proposing the factor extraction solution. (Blunch N. J., 2015) (p. 54). This dimension reduction method required items to have at least one correlation above 0.5 as well as a Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy for greater than 0.5 (Blunch N. J., 2015). The results are presented in chapter 5. Thereafter, the EO and OP constructs were extracted as new variables that comprised of their respective dimensions. Furthermore, the strategic sensitivity, collective commitment and resource fluidity dimensions, as well as the SA construct, was extracted to enable the following descriptive and inferential statistics.

4.8. Descriptive Statistics

Descriptive statistics provided insight into the behaviour of the variables measured in this study through the use of the demographic information captured in the survey. This results included the overall tendency, dispersion and skewness, and the presence of outliers. Additionally, it was used to determine the variability, frequencies and described the profile of the data collected. The results of the descriptive statistics are presented in chapter 5; however, below describes the statistical tests that were conducted to describe the sample population of this study.

4.8.1. Population Demographics

The demographic information captured in the survey instrument provided insight into the behaviour of the measured variables. Therefore, a frequencies test was conducted to gather the information that describes the population of the study (Wegner, 2016). The results are presented in chapter 5.

4.8.2. Organisational Size as a Control Variable

An independent samples t-test was performed to test the assumption that there is no significant difference in EO between SMEs and CEs (Covin & Lumpkin, 2011) and that there is no significant difference in SA between SMEs and CEs(e Cunha et al., 2020). This test was selected as it firstly, tests the assumption that both groups have homogeneity of variance and secondly, it provides insight into the differences in the means between these two groups, in relation to the presence of EO and SA in their

respective type of organisation (Wegner, 2016). The results are presented in chapter 5.

4.8.3. Organisational Level as a Control Variable

The assumption that EO (Covin et al., 2020) and SA (Xing et al., 2020) are present across organisational levels was tested by performing an analysis of variance (ANOVA) using the F-test. This test was selected as the ANOVA tests for the difference of more than two independent variables within a group, whereas the t-test is limited to two independent variables within a group. However, the ANOVA also provides insight into the differences in the means between these three independent variables within the management level group, in relation to the presence of EO and SA (Mason & Perreault Jr, 1991). The results are presented in chapter 5.

4.9. Hypotheses Testing

4.9.1. Bivariate Linear Regression

Bivariate linear regression, which is a parametric statistical analysis that quantifies the association between dependent and independent variables and measures the strength of that relationship and is applied when both variables are continuous and with a normal distribution, was employed to examine the linear relationship between EO and OP (Wegner, 2016). This procedure aimed to test H_1, of which the following mathematical equation can express the relationship between the variables:

$$\text{Bivariate linear regression: } Y = a + bX$$

In this equation, *a* indicates the intercept where $X = 0$, b is the slope of the least-squares line, indicating the value of Y with a change in X.

Pearson's r correlation analysis was employed to determine the existence of relationships between EO and OP and to understand the extent of which a change in one variable will influence the second as the data was continuous and normally distributed. Analysis of the correlation coefficient r was in the range of between -1 and 1, where -1 suggested that the constructs had a perfect negative relationship

and +1 indicated that the constructs had a perfect positive relationship (de Winter, Gosling, & Potter, 2016). The results are presented in chapter 5.

4.9.2. Moderator Multiple Regression Analysis

Multiple regression analysis was used to understand the variability of the continuous, normally distributed, dependent variable OP when influenced by the independent variable EO and the moderator variable SA (Mason & Perreault Jr, 1991). In the moderation model, the moderator variable, denoted by W, is not a predictor but influences the strength and size of the relationship between the independent variable and the dependent variable as illustrated in figure 2 (Hayes & Rockwood, 2020).

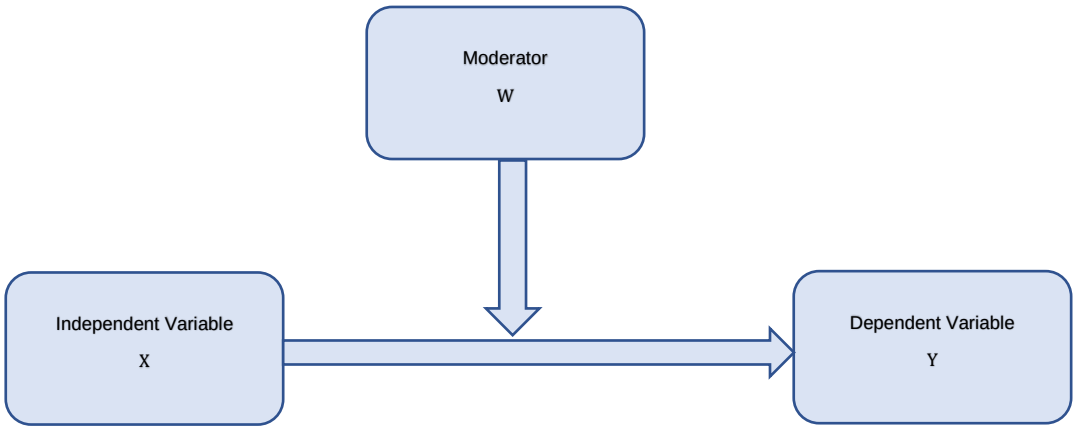

Figure 2: Moderation Model Development

Source: Adapted from (Hayes & Rockwood, 2020)

The moderation analysis to test H2; H3; H4; and H5 was conducted in the SPSS Process v3.5 which is a software extension in SPSS, developed by Hayes, that performs the regression and inferences in SPSS (Hayes, 2017). This moderator analysis tests the interaction between W and X in a model of Y. The relationship between the X and Y variables is linear, including the relationship between the W and X variables, with Y being the continuous variable (Hayes, 2015). The moderation model can be expressed using the following mathematical equation:

Moderation analysis: $$Y = i_y + b_1X + b_2W + b_3XW + e_y$$

Where b_1, b_2, and b_3 are estimated regression coefficients, e_Y is an error estimation, and i_Y is a regression intercept. X's effect on Y is linearly moderated by W if the regression coefficient for XW is different from zero by an inferential test. The results are presented in chapter 5.

The regression terms for this model are represented as follows:

Y – Organisational Performance (OP)

X – Entrepreneurial Orientation (EO)

W – Strategic Sensitivity (SS); Collective Commitment (CC); Resource Fluidity (RF); Strategic Agility (SA)

XW – Independent variable-moderator interaction terms:

a. Strategic Sensitivity (SS) * EO
b. Collective Commitment (CC) * EO
c. Resource Fluidity (RF) * EO
d. SA * EO

4.9.3. Assumptions of Regression Analysis

Prior to conducting the regression analysis, further assumptions for the test had to be satisfied (Hayes, 2017). Firstly, the sample size is large enough to perform the multiple regression test. This assumption was satisfied with a final sample size of 138, which is above the recommended 40 (Bonett & Wright, 2000). This is discussed further in chapter 5. Secondly, the data is approximately normally distributed (Bai & Ng, 2015). This assumption was satisfied through the winsoring process and discussed further in chapter 5. Thirdly, there are no residual outliers in the dataset (Davidov et al., 2018). This assumption was satisfied through the winsorising process and discussed further in chapter 5. Fourthly, the data is homoscedastic (Hayes, 2017). This assumption was satisfied through the visual inspection of the regression standardised scatterplot independent variables strategic sensitivity, collective commitment, resource fluidity, SA and EO on OP as discussed further in chapter 5.

The last assumption is that there is no multicollinearity of the independent variable and dependent variable. A variance inflation factor (VIF) test was conducted to assess the multicollinearity of the data through linear regression. This assumption was satisfied, as the VIF values were < 10 and that the tolerance values were > 1 for both EO and SA (Hayes, 2017), the results are presented in chapter 5.

4.10. Limitations

As with most quantitative research, several limitations of this study relates to the data collection and analysis process (McCusker & Gunaydin, 2019). These limitations are discussed in the subsequent section.

4.10.1. Bias

A limitation of the online survey instrument used to capture the perceptions and insights of the respondents is that a degree of bias would be present in the data (Doyle et al., 2019). This expectation surfaced due to the self-reporting manner in which data was collected from the respondents (McCusker & Gunaydin, 2019). Although statistical measures were taken to address the constraint of bias, a degree of bias may exist in the dataset, which may limit the robustness of the findings (Doyle et al., 2019).

4.10.2. Sample Size

The final sample size comprised of 138 valid respondents, which satisfied the requirements for statistical significance (Deutskens et al., 2004). However, the recommended samples for structural model analysis, which improves the robustness of the findings, is 200 (Hair et al., 2012). Although statistical measures were taken to address the constraint of the relatively low sample size, this sample size may limit the robustness of the findings as it is below the recommended threshold for structural model analysis (Hair et al., 2012).

4.10.3. Sample Method

A sampling frame was not available at the start of this study; therefore, probability sampling could not be adopted and non-probability, purposive sampling techniques were utilised(Vehovar et al., 2016). These techniques imply that judgement was exercised in selecting participants who fit the sampling criterion of which is for the participants to working in a management position, for more than one year, at a small, medium or large organisation (McCusker & Gunaydin, 2019). However, these non-probability sampling techniques limits statistical inference to generalise these finding to the larger population (Vehovar et al., 2016).

4.10.4. Population

Research has indicated that EO (Covin & Lumpkin, 2011) and SA (e Cunha et al., 2020) are generalisable across different SMEs and CEs; and that EO (Covin et al., 2020) and SA (Xing et al., 2020) are generalisable across different organisational levels. However, although the final sample contained respondents from different levels of an organisation and different industries, regions and provinces in South Africa, the majority of the respondents represented middle levels of CEs. In the context of this study, and with the background of the global pandemic, these responses introduce a bias toward CEs, who generally have access to more resources as compared to SMEs (Watson et al., 2019).

4.10.5. Performance of the Organisation

This study adopted a cross-sectional approach due to time constraints. This approach means that the response data collected was based on the individual's perception of performance at that point in time. However, performance may give a better reflection over a period of time (Shin et al., 2015), even more so, in the context of a turbulent business environment created by a global pandemic where access to resources are limited (Doz, 2020). Therefore, the choice of a cross-sectional study over a longitudinal study creates a bias in the findings, as some of the responses may be determined by current economic circumstances, instead of the actual long-term performance considerations (Shin et al., 2015).

4.11. Conclusion

Chapter 4 outlined the choice of methodology and research design. It presented the approaches taken for the statistical analysis of the data as well as the descriptive statistics of the sample population. Furthermore, it presented the choice of statistical methods for testing the hypotheses outlined in chapter 3. Lastly, it provided a discussion on the limitations of this explanatory research study. The next chapter presents the results for the statistical analysis, descriptive statistics and hypothesis testing procedures.

CHAPTER 5

RESULTS

5.1. Introduction

Chapter 5 presents the results for the data collection process and data analysis. Additionally, it presents the results for the statistical analysis and the descriptive statistics. Lastly, it presents the results of the hypotheses testing that was conducted.

5.2. Data Collection

The SME target population from wave one yielded a total of 89 responses. Whilst the CE target population of wave two yielded a total of 109 responses from the 180 distributed, which resulted in a response rate of 61%, which is much higher than the expected 25%. Lastly, wave three yielded a total of 37 responses, which equated to a final total of 235 respondents.

The raw data was then analysed for respondents that did not meet the qualifying criteria. This analysis resulted in; first, eight respondents from the pilot study were removed, second, eight unemployed respondents were removed, third, one respondent that stated ‘pensioner’ was removed, fourth, 22 respondents that were in positions below management level were removed, fifth, 16 respondents that were in their roles for less than one year were removed, and last, 28 respondents that represented micro-organisations were removed. After the participants that did not meet the qualifying criteria were removed from the raw data, the total number of valid respondents that could be prepared was 152.

5.3. Data Analysis

5.3.1. Data Preparation

The platform hosting the response data consolidated the information according to the listed questions and its associated responses. A sample of the raw data is presented in appendix 3.

Upon analysis of the raw data, it was observed that some of the respondents specified their education status instead of selecting the available options, for example, they specified that they were pursuing their MBA instead of selecting the postgraduate degree option, similarly, some respondents specified their roles in the organisation rather than selecting from the categories provided, for example, respondents stated that they were in project management instead of selecting from the available options. Judgement was used to re-categorise these responses into the respective categories such that the data would be consistent, which enabled the coding process. These re-categorised responses were added to the codebook of which was constructed in the following manner, firstly, the survey questions were coded into data labels; secondly, the gender, education, role, tenure and organisational size categories were coded into numeric data and lastly, the Likert scale responses were coded into labels. The codebook is provided in appendix 4.

5.3.2. Missing Data

Upon analysis of the prepared data, missing data records were present amongst fourteen respondents, as depicted in appendix 5. Of these fourteen respondents, one respondent (participant 22) did not complete four questions relating to SA, whilst two or fewer questions were left unanswered across the variables being investigated by the remaining thirteen respondents. From this analysis, a pattern of MCAR emerged; thus, further analysis to determine the percentage of missing data was conducted as presented in Table 9.

Table 9: Percentage of Missing Data Records

Percentage of Missing Data Records	
Number of Data Records	4843
Number of Missing Data Records	21
Percentage of Missing Records	0.4%

Table 9 illustrates that the 0.4% of missing data records are considerably below the recommended 5% threshold for selecting the listwise or pairwise deletion methods and because the missing data records were not dependent on any pairing of variables being examined, the listwise method was selected, and the fourteen respondents were removed from the study which meant that the total number of possible responses imported to SPSS was 138 as summarised in Table 10.

Table 10: Summary of Data Preparation and Cleaning

Summary of Data Preparation and Cleaning	
Total number of respondents	235
Less pilot study respondents	8
Less unemployed respondents	8
Less pensioners	1
Less respondents not in management	22
Less respondents new to their role	16
Less respondents representing micro-organisations	28
Less respondents with missing data	14
Total number of valid respondents	138

5.4. Statistical Analysis

5.4.1. Normality

The first procedure for testing the normality of data was the tests for skewness and kurtosis. The results for the skewness test indicated that all responses, except for responses to questions 6, 18, 19, 22, 23, 25, 34, and 37, were negatively skewed as the Z-values were beyond -1.96. Similarly, the results for kurtosis indicated that the 'peakedness' for responses to questions 11, 18, 22, 28, 34, and 37 were outside the acceptable range of -1.96 and 1.96. This indicates that the data is not normally distributed, as presented in Table 11.

Table 11: Results for Tests for Skewness and Kurtosis

Variables	Skewness			Kurtosis		
	Statistic	Std. Error	Z-Value	Statistic	Std. Error	Z-Value
EO06	-0.190	0.206	-0.919	-0.769	0.410	-1.875
EO07	-0.602	0.206	-2.918	-0.517	0.410	-1.262
EO08	-0.830	0.206	-4.022	-0.129	0.410	-0.315

EO09	-1.153	0.206	-5.590	0.780	0.410	1.904
EO10	-0.957	0.206	-4.640	0.414	0.410	1.011
EO11	-1.301	0.206	-6.305	1.296	0.410	3.162
EO12	-0.998	0.206	-4.837	0.641	0.410	1.565
EO13	-0.702	0.206	-3.402	0.071	0.410	0.172
EO14	-0.797	0.206	-3.862	0.322	0.410	0.787
EO15	-0.654	0.206	-3.169	-0.168	0.410	-0.410
EO16	-0.855	0.206	-4.146	0.453	0.410	1.106
EO17	-0.635	0.206	-3.080	-0.392	0.410	-0.956
EO18	-0.237	0.206	-1.150	-0.818	0.410	-1.996
EO19	-0.342	0.206	-1.656	-0.697	0.410	-1.701
EO20	-0.435	0.206	-2.107	-0.630	0.410	-1.537
EO21	-0.555	0.206	-2.688	-0.460	0.410	-1.123
EO22	-0.011	0.206	-0.055	-0.956	0.410	-2.333
EO23	-0.314	0.206	-1.521	-0.799	0.410	-1.949
OP24	-0.779	0.206	-3.775	0.282	0.410	0.688
OP25	-0.362	0.206	-1.752	-0.321	0.410	-0.782
OP26	-0.904	0.206	-4.381	-0.014	0.410	-0.033
OP27	-0.633	0.206	-3.067	-0.507	0.410	-1.237
OP28	-0.996	0.206	-4.830	1.016	0.410	2.479
SA29	-0.683	0.206	-3.312	-0.061	0.410	-0.150
SA30	-0.488	0.206	-2.365	-0.431	0.410	-1.052
SA31	-0.616	0.206	-2.986	-0.539	0.410	-1.314
SA32	-0.538	0.206	-2.606	-0.719	0.410	-1.754
SA33	-0.773	0.206	-3.747	-0.275	0.410	-0.671
SA34	-0.268	0.206	-1.297	-0.895	0.410	-2.184
SA35	-0.431	0.206	-2.089	-0.508	0.410	-1.239
SA36	-0.416	0.206	-2.017	-0.525	0.410	-1.281
SA37	-0.259	0.206	-1.256	-0.897	0.410	-2.189

The second test conducted to test the distribution of data for normality was the SW test presented in Table 12.

Table 12: Results for the Shapiro-Wilk Test

Variables	Shapiro-Wilk		
	Statistic	df	Sig.
EO06	0.945	138	0.000
EO07	0.903	138	0.000
EO08	0.885	138	0.000
EO09	0.837	138	0.000
EO10	0.878	138	0.000
EO11	0.825	138	0.000
EO12	0.876	138	0.000
EO13	0.907	138	0.000
EO14	0.903	138	0.000
EO15	0.906	138	0.000
EO16	0.898	138	0.000
EO17	0.908	138	0.000
EO18	0.942	138	0.000
EO19	0.931	138	0.000
EO20	0.931	138	0.000
EO21	0.912	138	0.000
EO22	0.943	138	0.000
EO23	0.933	138	0.000

OP24	0.899	138	0.000
OP25	0.927	138	0.000
OP26	0.875	138	0.000
OP27	0.903	138	0.000
OP28	0.870	138	0.000
SA29	0.909	138	0.000
SA30	0.922	138	0.000
SA31	0.909	138	0.000
SA32	0.907	138	0.000
SA33	0.890	138	0.000
SA34	0.932	138	0.000
SA35	0.934	138	0.000
SA36	0.933	138	0.000
SA37	0.935	138	0.000

The SW test in Table 12, indicated an outcome of Df (138) = 0.00 on all individual questions, thus that there is a significant deviation from normality as $p < 0.05$. These results are considerably different from the results from the tests for skewness and kurtosis, however, as analysis of the normal Q-Q plots determined that the observed value was very close to the expected normal, which is an indicator that the distribution of data is normal across all variables, as depicted in appendix 6.

In summary, the results for the distribution of data for the sample size indicated a negative skew, which means that there was an underlying bias in the responses from participants. The SW test confirmed this as it determined that the distribution of data away from the mean is significant. However, upon examination of the Q-Q plots, it was determined that the distribution of data is normal, as the data points were all within the expected range. The procedures provided mixed results; therefore, a closer examination of the outliers in the data set was conducted in an effort to improve the distribution of data.

5.4.2. Outliers

The box plot results indicated that there were 38 outliers across questions 9, 10, 11, 12, 24, and 28 (as presented in appendix 7). The process of winsorising was then followed where all the values of these 38 outliers were changed to its corresponding next highest valid value (as presented in appendix 8).

The box plot results for the first iteration of the winsorised values reduced the number of outliers to 15 across questions 10, 12, 24 and 28 (as presented in appendix 9).

The second iteration of winsorising was conducted where these 15 outliers were changed to its corresponding next highest valid value (as presented in appendix 10).

The box plot results for the second iteration of the winsorised values reduced the number of outliers to 9 across questions 10, 12, and 24 (as presented in appendix 11). The third iteration of winsorising was conducted where these nine outliers were changed to its corresponding next highest valid value (as presented in appendix 12).

The box plot results for the third iteration of the winsorised values reduced the number of outliers to one contained in question ten (as presented in appendix 13). The fourth iteration of winsorising was conducted where this one outlier was changed to its corresponding next highest valid value (as presented in appendix 14).

The box plot results for the fourth iteration of the winsorised values resulted in no further outliers. A summary of the winsorising process is presented in Table 13.

Table 13: Summary of the Winsorising Process

Number of Outliers	Statistic
Number of Outliers after 1st Iteration of winsorising	38
Number of Outliers after 2nd Iteration of winsorising	15
Number of Outliers after 3rd Iteration of winsorising	9
Number of Outliers after 4th Iteration of winsorising	1
Total Number of Outliers	63
Number of Data Records	4416
Percentage of Outliers	1.42%

The summary of the winsorising process highlights that the total number of winsorised data records was 63 from the data set containing 4416 data records. This equates to 1.42%, which is considerably less than the suggested 5%. Consequently, the winsorised data set was treated as normal for the rest of the study.

5.4.3. Validity

The CFA method was used to test both convergent, and discriminant validity and the results are presented below.

Convergent Validity

The results from the standardised loadings for the test for convergent validity are presented in Table 14. Two questions were below the 0.70 thresholds. They were EO23 (question 23) “Employees have access to all vital information” at 0.5 and OP24 (question 24) “Forge closer links with suppliers; monitor quality; monitor delivery times; gain leverage over suppliers; negotiate pricing” at 0.6. Consequently, they were removed from the structural model, and all questions loaded were now above 0.7. The next step was to determine the AVE for each dimension, as presented in Table 14.

Table 14: AVE for each Dimension mary of the Winsorising Process

Standardized Regression Weights				
Item		Dimension / Construct	Standardised Loadings	AVE
EO08	<---	Risk Taking	0.861	0.8
EO07	<---	Risk Taking	0.952	
EO06	<---	Risk Taking	0.785	
EO11_w1	<---	Innovativeness	0.894	0.8
EO10_w4	<---	Innovativeness	0.801	
EO09_w1	<---	Innovativeness	0.918	
EO14	<---	Proactiveness	0.848	0.7
EO13	<---	Proactiveness	0.899	
EO12_w3	<---	Proactiveness	0.795	
EO17	<---	Competitive Aggressiveness	0.878	0.8
EO16	<---	Competitive Aggressiveness	0.937	
EO15	<---	Competitive Aggressiveness	0.929	
EO20	<---	Autonomy	0.774	0.7
EO19	<---	Autonomy	0.885	
EO18	<---	Autonomy	0.917	
EO21	<---	Autonomy	0.748	
EO22	<---	Autonomy	0.811	
OP26	<---	Organisational Performance	0.902	0.7
OP25	<---	Organisational Performance	0.832	
OP27	<---	Organisational Performance	0.858	
OP28_w2	<---	Organisational Performance	0.775	
SA31	<---	Strategic Sensitivity	0.79	0.7
SA30	<---	Strategic Sensitivity	0.893	
SA29	<---	Strategic Sensitivity	0.841	
SA34	<---	Collective Commitment	0.875	0.8
SA33	<---	Collective Commitment	0.836	
SA32	<---	Collective Commitment	0.941	
SA37	<---	Resource Fluidity	0.892	0.7

SA36	<---	Resource Fluidity	0.903	
SA35	<---	Resource Fluidity	0.756	

Table 14 presents the AVE from the standardised loadings for each item. The AVEs for all nine dimensions were above 0.5, which indicates the convergent validity has been established.

Discriminant Validity

The results from the Fornell-Larcker criterion are presented in Table 15.

Table 15: Results from the Fornell-Larcker Criterion Test

Square Root of AVE in Comparison to the Squared Inter-Construct Correlation									
	Risk	Innov	Proact	Comp Agg	Auto	OP	SS	CC	RF
Risk	0.869								
Innov	0.416	0.872							
Proact	0.367	0.717	0.848						
Comp Agg	0.387	0.430	0.651	0.915					
Auto	0.533	0.441	0.347	0.307	0.830				
OP	0.410	0.841	0.646	0.557	0.476	0.843			
SS	0.441	0.575	0.746	0.482	0.408	0.750	0.842		
CC	0.412	0.506	0.496	0.448	0.428	0.672	0.823	0.885	
RF	0.460	0.507	0.356	0.403	0.523	0.691	0.681	0.706	0.853

Table 15 presents the Fornell-Larcker criterion which displays that all the squared root of AVE values for the of the dimensions are below its squared inter-construct correlation which indicates that although all dimensions correlate, that there are discriminant differences between them, thus establishing discriminant validity.

In summary, the PLS-SEM technique was selected as this helped to mitigate the effects of biases identified through the skewness of data. The data set was tested to ensure that assumptions of both the convergent and discriminant validities were not violated.

The results from the convergent validity tests indicated that two of the questions were invalid and were removed from the study; subsequently, all remaining questions were valid and with AVEs above 0.5, convergent validity was established. Furthermore, from these results, competitive aggressiveness displayed the highest valid AVE, which indicated that it explained 80% of the variance in that dimension, whilst autonomy displayed the lowest valid AVE, which indicated that it explained 70% of the variance in that dimension.

The results from the discriminant validity tests indicated that although all dimensions correlate, that there are discriminant differences between them, thus discriminant validity was established. Furthermore, these results indicated that OP and innovativeness have the highest correlation, followed by CC and strategic sensitivity. However, autonomy and competitive aggressiveness have the lowest correlation, followed by autonomy and proactiveness.

5.4.4. Reliability

The results from the CR tests are presented in Table 16.

Table 16: Results from the Composite Reliability Tests

Standardized Regression Weights	
Dimension / Construct	Composite Reliability
Risk Taking	0.885
Innovativeness	0.889
Proactiveness	0.869
Competitive Aggressiveness	0.927
Autonomy	0.817
Organisational Performance	0.847
Strategic Sensitivity	0.864
Collective Commitment	0.900
Resource Fluidity	0.871

Table 16 presents that results from the composite reliability tests of which indicates all of the dimensions being measured are within the ‘good’ range, thus establishing composite reliability. This indicates that although the existing scales were developed in different contexts, they are both valid and reliable for this context.

5.4.5. Model Fit

The results from the structural model assessment are present in Table 17 below.

Table 17: Results from the Model Fit Test

Model Fit Indices					
Construct	GFI	AGFI	NFI	CFI	RMSEA
OP	0.999	0.996	0.999	1.000	0.000
EO	0.783	0.715	0.858	0.906	0.108
SA	0.861	0.739	0.909	0.928	0.157

From these results, it is observed that the GFIs and AGFIs for OP, EO and SA are above 0.70 as well as their NFIs and CFIs are above 0.80. These indicators infer that the factors intended to measure OP, EO, and SA respectively, do measure them and that the model fits the data. However, RMSEA indicates that EO and SA are above the 0.08 threshold, whilst OP is within the threshold. This means that the model is not ideal for the findings of the study to be generalised to the larger population, which is a consequence of the choice of the non-probability sampling technique.

5.4.6. Dimension Reduction

The results from the dimension reduction procedure indicated that all items had correlations above 0.5, as presented in Appendix 15. Additionally, the results from the KMO test were summarised and presented in Table 18.

Table 18: Results from the KMO Test

KMO Test	
Dimension / Construct	KMO
Risk Taking	0.694
Innovativeness	0.728
Proactiveness	0.744
Competitive Aggressiveness	0.762
Autonomy	0.882
Entrepreneurial Orientation	0.800
Strategic Sensitivity	0.727
Collective Commitment	0.741
Resource Fluidity	0.701
Strategic Agility	0.751
Organisational Performance	0.847

The results from the KMO test indicates that all the dimensions and the constructs have KMO values greater than 0.5. The EO construct, which comprises of its fives dimensions scored in the excellent range at 0.8, whilst the SA construct, along with its three dimensions scored in the 'good' range of between 0.7 and 0.8. Lastly, the OP construct also scored in the excellent range at 0.8; therefore, the dimension reduction process to extract the relevant factors was deemed successful. Henceforth, the EO, SA and OP constructs, as well as the SS, CC and RF dimensions, were used for statistical analysis.

5.5. Descriptive Statistics

5.5.1. Population Demographics

At the commencement of the survey, five demographic questions were used to profile the respondents. The data collected on the respondent's gender, education level, management level, organisational size, and tenure were analysed and is presented below.

5.5.2. Gender Demographics

The gender question was categorised into two groups, male and female. The final sample size consisted of 138 valid responses of which comprised of 57% of the population that were male respondents, with 43% representing female as presented in figure 3.

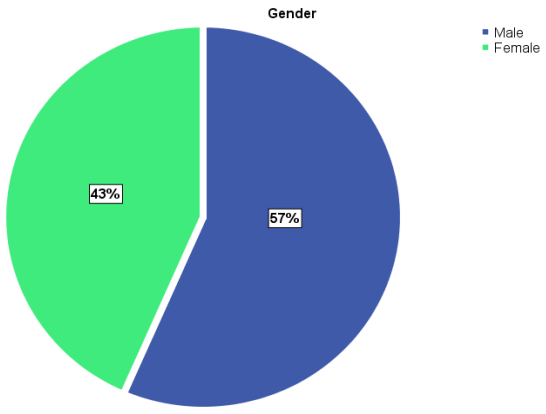

Figure 3: Gender Demographics

5.5.3. Education Level Demographics

The education level question was categorised into three groups, secondary school, diploma or degree, and postgraduate diploma or degree. The final sample size consisted of 138 valid responses of which comprised of 63% of the population that possessed postgraduate diplomas or degrees, followed by 28% with diplomas or degrees and 9% with secondary school education as presented in figure 4.

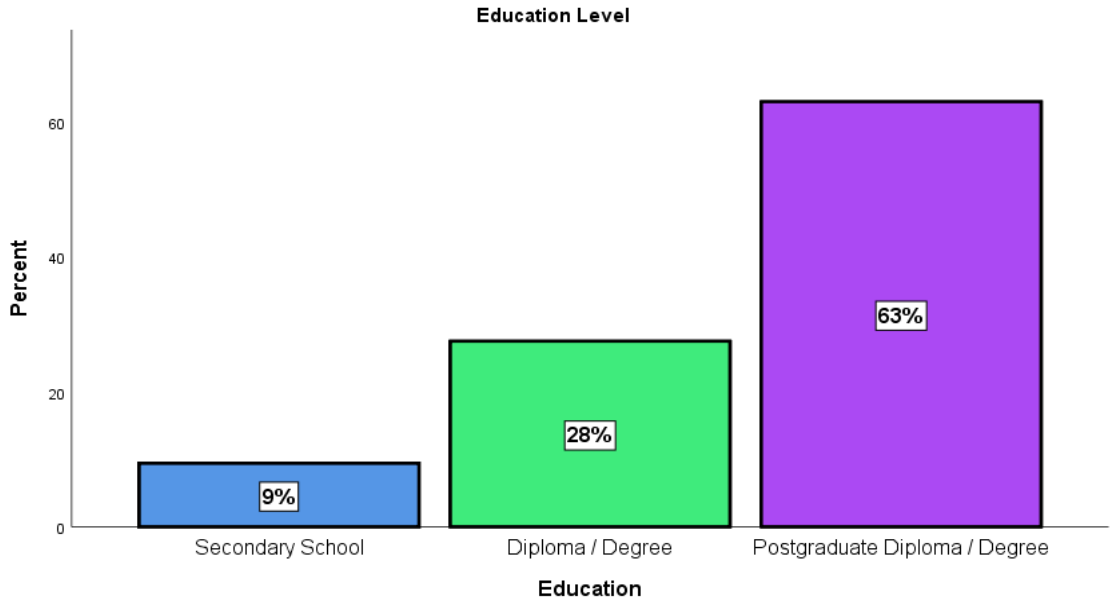

Figure 4: Education Level Demographics

5.5.4. Organisational Level Demographics

The organisational level question was categorised into three groups, junior, middle, and senior and executive levels. The final sample size consisted of 138 valid responses of which comprised of 56% of the population that were designed to middle management in their respective organisations, with 36% representing senior and executive management, followed by junior management with 9% as presented in figure 5.

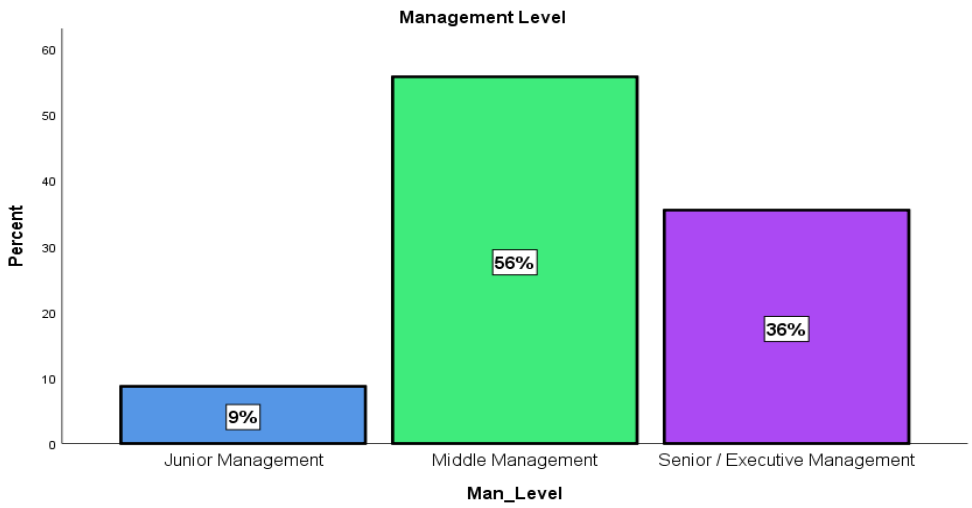

Figure 5: Management Level Demographics

5.5.5. Organisational Size Demographics

The organisational size question was categorised into two groups, SMEs and CEs. The final sample size consisted of 138 valid responses of which comprised of 62% representation of CEs, whilst SMEs were represented by 38% of the responses as presented in figure 6.

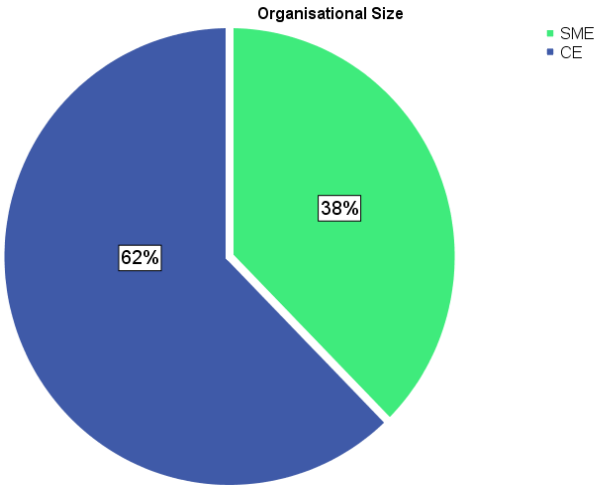

Figure 6: Organisational Size Demographics

5.5.6. Tenure Demographics

The tenure question was categorised into four groups, 1-5 years, 6-10 years, 11-14 years and 15 or more years. The final sample size consisted of 138 valid responses of which comprised of 41% of the population that was employed at their organisations for 1-5 years, followed by 6-10 years and 15 or more years at 20% each, with 11-14 years close behind on 18% as presented in figure 7.

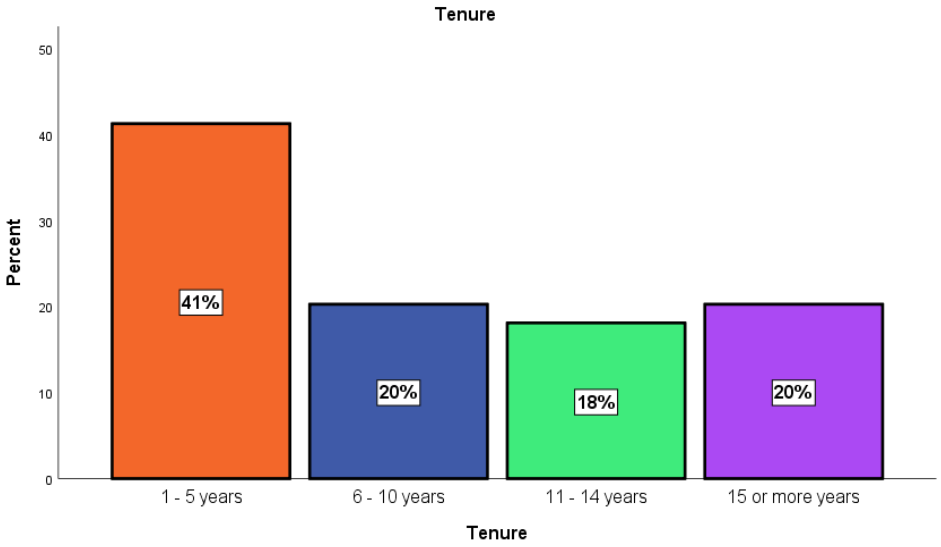

Figure 7: Tenure Demographics

5.5.7. Organisational Size as a Control Variable

Presence of EO in SMEs and CEs

The results from the group statistics for EO and SA on organisational size are presented in Table 19.

Table 19: Results for the Independent Samples t-test for Organisational Size and EO

Group Statistics					
Org_Size		N	Mean	Std. Deviation	Std. Error Mean
Entrepreneurial Orientation	SME	52	0.22	0.985	0.137
	CE	86	-0.13	0.991	0.107
Strategic Agility	SME	52	0.18	1.068	0.148
	CE	86	-0.11	0.947	0.102

The above descriptive statistics illustrate that there 52 SMEs and 86 CE participants. The level of EO is higher in SMEs (0.22 ± 0.985) than in CEs (-0.13 ± 0.991). Similarly, the level of SA is higher in SMEs (0.18 ± 1.068) than in CEs (-0.11 ± 0.947). The reason both EO and SA are higher in SMEs than in CEs is that the average scores for EO and SA are higher in SMEs, which could change based on the context changing.

The results from the independent samples *t*-test for the control variable organisational size in relation to EO and SA is presented in Table 20.

Table 20: Results for the Independent Samples t-test for Organisational Size and EO

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Entrepreneurial Orientation	Equal variances assumed	0.016	0.899	2.043	136	0.043	0.355	0.174	0.011	0.698
	Equal variances not assumed			2.046	108.189	0.043	0.355	0.173	0.011	0.698
Strategic Agility	Equal variances assumed	0.988	0.322	1.623	136	0.107	0.284	0.175	-0.062	0.629
	Equal variances not assumed			1.576	97.753	0.118	0.284	0.180	-0.074	0.641

The above descriptive statistics indicate that Levene's test for equality of variances for EO is p = 0.899, which is > 0.05. Therefore, it is noted that the variance is not statistically significantly different; thus, equal variances are assumed, and the assumption for homogeneity for EO across SMEs and CEs has not been violated. The *t*-test results for EO indicated that the difference within the 95% confidence interval ranged from 0.011 (lower end) and 0.698 (upper end). However, the mean difference was 0.355. Lastly, the *t*-test sig value for EO is p = 0.043, which is < 0.05. Therefore there is a significant difference between SMEs and CEs EO scores, with the SMEs scoring higher than CEs.

Similarly, for Levene's test for equality of variances for SA is p = 0.322, which is > 0.05. Therefore, it is noted that the variance is not statistically significantly different, thus equal variance is assumed, and the assumption for homogeneity for SA across SMEs and CEs has not been violated. The *t*-test results for SA, it was noted that the difference within the 95% confidence interval ranged from -0.062 (lower end) and 0.629 (upper end). However, the mean difference was 0.284. Lastly, the *t*-test sig value for SA is p = 0.107, which is > 0.05. Therefore there is no significant difference between SMEs and CEs SA scores; however, SMEs scored higher than CEs for SA.

5.5.8. Management Level as a Control Variable

The results from the descriptive statistics for management level on EO and SA are presented in Table 21.

Table 21: Results for the descriptive statistics for management level on EO and SA

Descriptives									
		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
						Lower Bound	Upper Bound		
Entrepreneurial Orientation	Junior Management	12	0.37	0.810	0.234	-0.15	0.88	-1	2
	Middle Management	77	-0.17	1.036	0.118	-0.40	0.07	-3	2
	Senior / Executive Management	49	0.17	0.945	0.135	-0.10	0.45	-2	2
	Total	138	0.00	1.000	0.085	-0.17	0.17	-3	2
Strategic Agility	Junior Management	12	0.18	0.771	0.223	-0.31	0.67	-1	2
	Middle Management	77	-0.09	1.060	0.121	-0.33	0.15	-3	2
	Senior / Executive Management	49	0.10	0.952	0.136	-0.17	0.38	-2	2
	Total	138	0.00	1.000	0.085	-0.17	0.17	-3	2

The above descriptive statistics of EO and SA on management level indicates that the group sizes were not equal as n=12 for junior management, n=77 for middle management and n=49 for senior or executive management.

There is a trend where the level of EO (mean = 0.37) and level of SA (mean = 0.18) is at the highest in junior management levels of the organisation, the levels of both EO (mean = -0.17) and SA (mean = -0.09) are considerably lower at middle management levels of the organisation and then both EO (mean = 0.17) and SA (mean = 0.10) increase in senior or executive management levels of the organisation.

Although the standard deviations are different across EO (ranging from 0.810 to 1.036) and SA (ranging from 0.771 to 1.060) these trends are highlighted in figure 8 which is the mean plot for EO and figure 9 which is the mean plot SA.

Figure 8: Mean Plot for EO

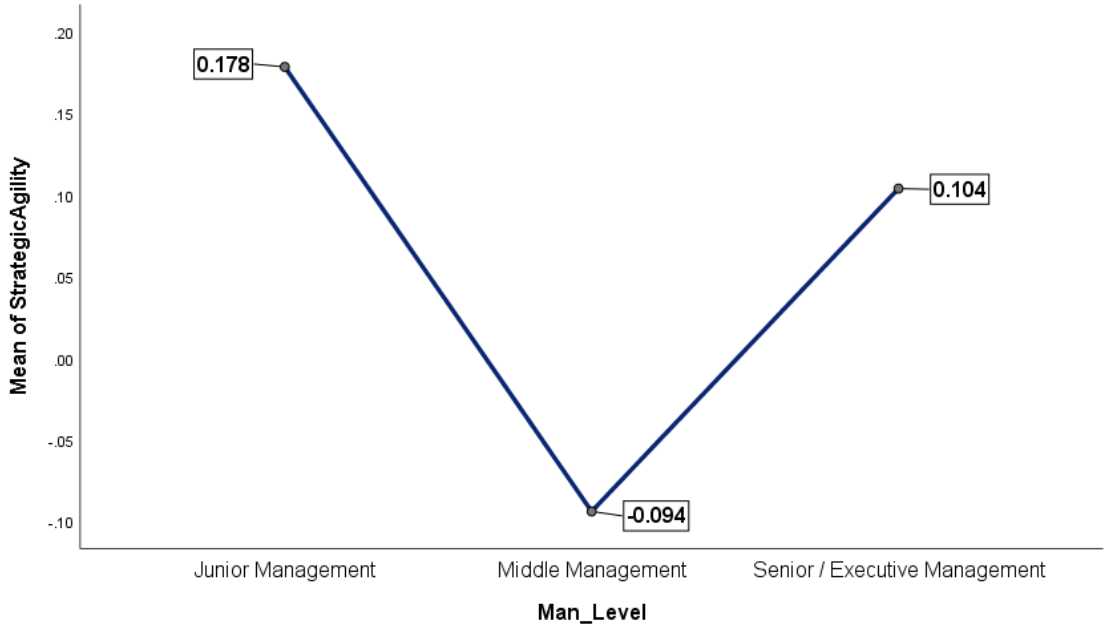

Figure 9: Mean Plot for SA

The next step in the testing procedure was to analyse the results from the test of homogeneity of variances, as presented in Table 22.

Table 22: Results for the test for Homogeneity for management level on EO and SA

Test of Homogeneity of Variances					
		Levene Statistic	df1	df2	Sig.
Entrepreneurial Orientation	Based on Mean	0.341	2	135	0.711
	Based on Median	0.404	2	135	0.668
	Based on Median and with adjusted df	0.404	2	130.478	0.668
	Based on trimmed mean	0.388	2	135	0.679
Strategic Agility	Based on Mean	1.786	2	135	0.172
	Based on Median	1.506	2	135	0.226
	Based on Median and with adjusted df	1.506	2	132.621	0.226
	Based on trimmed mean	1.722	2	135	0.183

The results presented above suggest that for Levene's test for equality of variances for EO is p = 0.711, which is > 0.05. Therefore, it is noted that the variance is not statistically significantly different; thus, equal variances are assumed, and the assumption for homogeneity for EO across different organisational levels has not been violated. Similarly, Levene's test for equality of variances for SA is p = 0.172, which is > 0.05. Therefore, it is noted that the variance is not statistically significantly different; thus, equal variances are assumed, and the assumption for homogeneity for SA across different organisational levels has not been violated.

The next step in the testing procedure was to analyse the results from the ANOVA test, as presented in Table 23.

Table 23: Results for the ANOVA test for management level on EO and SA

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Entrepreneurial Orientation	Between Groups	5.288	2	2.644	2.710	0.070
	Within Groups	131.712	135	0.976		
	Total	137.000	137			
Strategic Agility	Between Groups	1.588	2	0.794	0.792	0.455
	Within Groups	135.412	135	1.003		
	Total	137.000	137			

The above ANOVA test notes a sig value of p = 0.070 for EO, which is > 0.05, and a sig value of p = 0.455 for SA, which is < 0.05, therefore there is no significant difference in EO organisational levels. However, there is a significant difference between the levels of SA and the different organisational levels.

5.6. Hypotheses Testing

5.6.1. Assumptions of Regression Analysis

The first assumption of adequate sample size was not violated as a final sample size of 138 was used, which is above the recommended 120, as discussed in chapter 5.

The second assumption that the data is approximately normally distributed was tested using the same procedure outlined in chapter 5. The results for the Skewness, Kurtosis and Shapiro-Wilk is presented in Table 24.

Table 24: Results for Tests for Normality

Descriptive Statistics										
	N	Skewness			Kurtosis			Shapiro-Wilk		
	Statistic	Statistic	Std. Error	Z-value	Statistic	Std. Error	Z-value	Statistic	df	Sig.
Strategic Sensitivity	138	-0.591	0.206	-2.867	-0.282	0.410	-0.688	0.954	138	0.000
Collective Commitment	138	-0.546	0.206	-2.646	-0.520	0.410	-1.269	0.949	138	0.000
Resource Fluidity	138	-0.329	0.206	-1.595	-0.574	0.410	-1.402	0.970	138	0.004
Strategic Agility	138	-0.454	0.206	-2.201	-0.512	0.410	-1.250	0.968	138	0.002
Entrepreneurial Orientation	138	-0.767	0.206	-3.718	0.443	0.410	1.082	0.954	138	0.000
Organisational Performance	138	-0.663	0.206	-3.212	-0.205	0.410	-0.501	0.944	138	0.000

From the above table, the results for the skewness test indicated that although the RF variable is in the acceptable range the SS, CC, SA, EO and OP variable were negatively skewed as the Z-values were beyond -1.96. The results for Kurtosis indicated that the 'peakedness' for all variables were in the acceptable range of -1.96 and 1.96. This indicates that the data is not normally distributed, as presented in Table 24. The results for the SW test indicated an outcome of $p < 0.00$ on all variables, thus that there is a significant deviation from normality. These results are considerably different from the results from the tests for skewness and kurtosis, however, as analysis of the normal Q-Q plots determined that the observed value was very close to the expected normal, which is an indicator that the distribution of data is normal across all variables, as depicted in appendix 16. Thus, the assumption that the data is approximately normally distributed has not been violated.

The third assumption that is no outliers were inspected using the same procedure as outlined in chapter 5. The box plot results indicated that there were seven outliers across respondent 162 for SA, respondents 16, 26, 39 and 162 for EO and respondents 16 and 66 for OP (as presented in appendix 17). The process of winsorising was then followed where all the values of these seven outliers were changed to its corresponding next highest valid value (as presented in appendix 18). Thus, the assumption that there are no outliers has not been violated.

The fourth assumption that the data was homoscedastic was tested using the regression standardization scatterplot, as presented in figure 10.

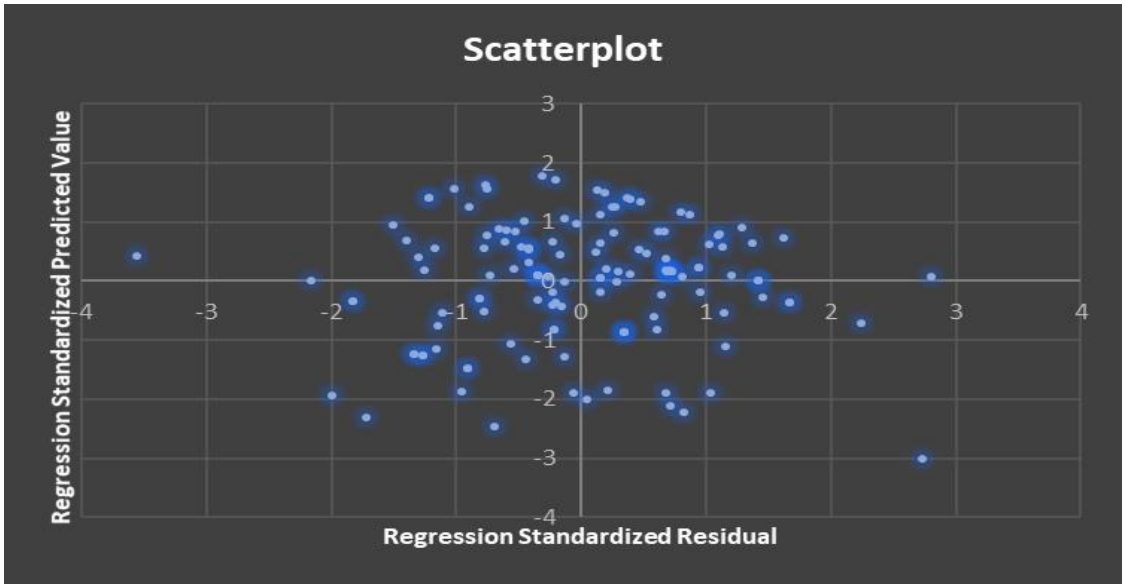

Figure 10: regression standardization scatterplot

The above scatterplot indicates that there is a pattern of randomness. Thus the assumption for homoscedasticity has not been violated.

The fifth assumption that there is no multicollinearity of the independent variables and the dependent variable was tested, and the results are presented in Table 25

Table 25: Results for the Test for Collinearity

Coefficients			
Model		Collinearity Statistics	
		Tolerance	VIF
1	Entrepreneurial Orientation	0.335	2.982
	Strategic Agility	0.335	2.982
a. Dependent Variable: Organisational Performance			

The above indicates that the VIF values for both EO (2.982) and SA (2.982) are < 10 and that the tolerance for EO (0.335) and SA (0.335) is> 1. Therefore, because the VIF and tolerance values are within the specified ranges, the assumption of multicollinearity has not been violated.

5.6.2. H1: There is a relationship between EO and OP

The results from the bivariate linear regression indicated that no variables were no removed and confirmed that the dependent variable is OP. The results from the model summary are presented in Table 26.

Table 26: Model Summary for Bivariate Linear Regression Test for EO and SA

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.846a	0.716	0.714	0.530
a. Predictors: (Constant), Entrepreneurial Orientation				

The results from the bivariate linear regression test indicate the R-value, which is a representation Person's correlation coefficient '*r*', is 0.846. This signifies that there is a positive relationship between EO and OP and that the level of prediction of EO on OP is 'good' as '*r*' is closer 1. Furthermore, the adjusted R square, which attempts to correct R square for bias, is 0.714, which implies that EO explains 71.4% of the variability of OP.

The next step is to assess the model fit to the data. The results are presented in Table 27.

Table 27: ANOVA Results for Bivariate Linear Regression Test for EO and SA

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	96.138	1	96.138	342.588	.000b
	Residual	38.165	136	0.281		
	Total	134.303	137			
a. Dependent Variable: Organisational Performance						
b. Predictors: (Constant), Entrepreneurial Orientation						

The above ANOVA test notes a sig value of p = 0.000, which is < 0.05, therefore the proposed model is a good fit for the data.

The next step is to analyse the coefficients of which is presented in Table 28

Table 28: Coefficients Results for Bivariate Linear Regression Test for EO and SA

Coefficients								
Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	-0.004	0.045		-0.089	0.929	-0.093	0.085
	Entrepreneurial Orientation	0.858	0.046	0.846	18.509	0.000	0.766	0.950
a. Dependent Variable: Organisational Performance								

From the above table, it is noted that the sig (p-value) is < 0.05, which implies that EO is a significant predictor of OP. Furthermore, it is observed that EOs lower bound, at a 95% confidence level, is 0.766 and its higher bound is 0.950. Thus, it can be deduced that there is a positive relationship between EO and OP and that EO predicts OP.

5.6.3. H2: Strategic sensitivity moderates the relationship between EO and OP

Model 1 of Process v3.5 in SPSS was selected to investigate the moderating effect of SS on the EO-OP relationship. The results are presented in Table 29, Table 30, Table 31

Table 29: Model Summary for SS moderating EO-OP

Model Summary						
R	R-sq	MSE	F	df1	df2	p
0.872	0.760	0.244	83.460	5.000	132.000	0.000

The overall model summary results for EO, OP and SS indicates that $F(5,132) = 83,460$, $p = 0.000$, $R^2 = 0.760$. This means that the model is significant and that 76.0% of the variability is explained by the SS and EO variables on OP.

Table 30: Model Results for SS moderating EO-OP

Model						
	Coeff (b)	se	t	p	LLCI	ULCI
constant	0.187	0.251	0.745	0.458	-0.309	0.682
EO_w	0.625	0.075	8.328	0.000	0.476	0.773
SS	0.320	0.071	4.473	0.000	0.178	0.461
Int_1	0.044	0.040	1.121	0.264	-0.034	0.123
OrgSize	-0.011	0.093	-0.113	0.910	-0.195	0.174
OrgLevel	-0.088	0.071	-1.236	0.219	-0.229	0.053
Product terms key: Int_1: EO_w * SS						

From the above model, the results for EO was $b=0.625$, $t(132)=8.328$, $p = 0.00$, which is significant. This implies that as the level of EO increases, OP increases correspondingly, by 62.5%. The results for SS was $b=0.320$, $t(132)=4.473$, $p = 0.00$ which is significant. This implies that as the level of SS increases, OP increases correspondingly, by 32%. The results for SS and EO interaction was $b=0.044$, $t(132)= 1.121$, $p = 0.264$ which is not significant. Furthermore, the results for organisational size as a control variable was $b=-0.011$, $t(132)=-0.113$, $p = 0.910$ which is not significant and the results for organisational level was $b = -0.088$, $t(132) = -1.236$, $p=0.219$ which is not significant as presented in the SPSS output appendix 19.

Table 31: Conditional Effects of EO Predicting OP in the Presence of SS

Conditional effects of the focal predictor at values of the moderator(s):					
	R2-chng	F	df1	df2	p
X*W	0.002	1.257	1.000	132.000	0.264

From the above table, R2-change = 0.002, $F(1,132)=1.257$, $p = 0.264$ which is not significant. This means that in the SS and EO interaction explains 0.02% of the variability of OP and therefore is not significant.

Figure 11 illustrates the moderating effect of SS on EO-OP at below-average levels of SS, at average levels of SS and above-average levels of SS.

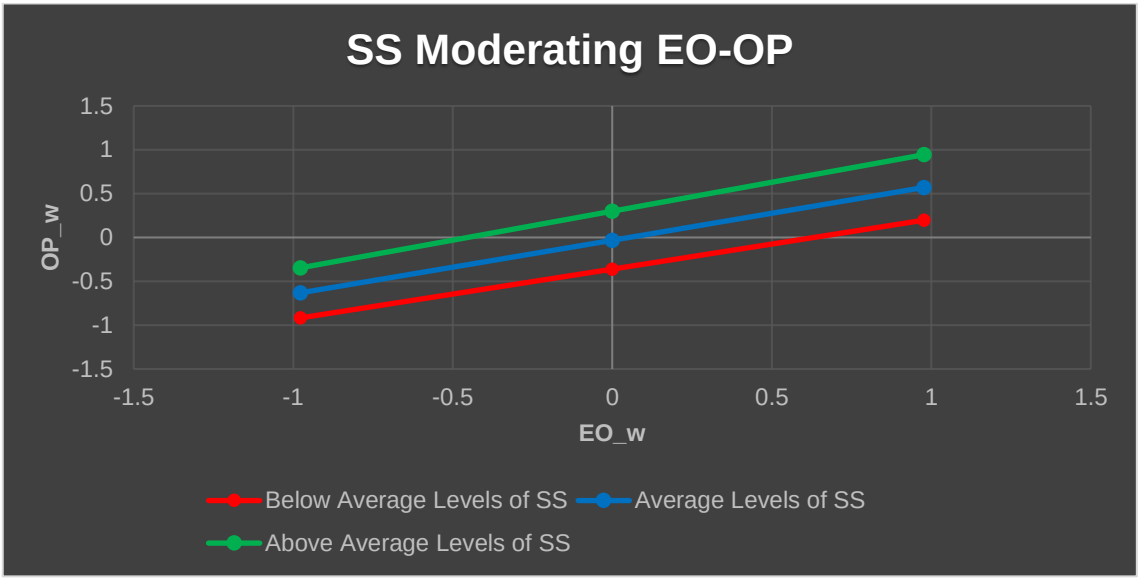

Figure 11: Moderating effect of SS on EO-OP

The above figure illustrates that SS does not influence the relationship between EO and OP; therefore, SS has no moderating effect on the relationship between EO and OP.

5.6.4. H3: Collective commitment moderates the relationship between EO and OP

Model 1 of Process v3.5 in SPSS was selected to investigate the moderating effect of CC on the EO-OP relationship. The results are presented in Table 32, Table 33, Table 34

Table 32: Model Summary for CC moderating EO-OP

Model Summary						
R	R-sq	MSE	F	df1	df2	p
0.872	0.761	0.243	84.171	5.000	132.000	0.000

The overall model summary results for EO, OP and CC indicates that $F(5,132) = 84.171$, $p = 0.000$, $R^2 = 0.761$. This means that the model is significant and that 76.1% of the variability is explained by the CC and EO variables on OP.

Table 33: Model Results for CC moderating EO-OP

Model						
	Coeff (b)	se	t	p	LLCI	ULCI
constant	0.315	0.248	1.267	0.207	-0.177	0.806
EO_w	0.637	0.067	9.512	0.000	0.505	0.770
CC	0.287	0.064	4.479	0.000	0.160	0.413
Int_1	-0.021	0.039	-0.531	0.596	-0.098	0.056
OrgSize	0.040	0.091	0.440	0.660	-0.140	0.220
OrgLevel	-0.159	0.071	-2.230	0.027	-0.300	-0.018
Product terms key: Int_1: EO_w * CC						

From the above model, the results for EO was $b=0.637$, $t(132)=9.512$, $p = 0.00$ which is significant. This implies that as the level of EO increases, OP increases correspondingly, by 63.7%. The results for CC was $b=0.287$, $t(132)=4.479$, $p = 0.00$ which is significant. This implies that as the level of CC increases, OP increases correspondingly, by 28.7%. The results for CC and EO interaction was $b=-0.021$, $t(132)= -0.531$, $p = 0.596$ which is not significant. Furthermore, the results for organisational size as a control variable was $b=0.040$, $t(132)= 0.440$, $p = 0.660$ which is not significant. The results for organisational level was $b= -0.159$, $t(132)= -2.230$, $p = 0.027$ which is significant as presented in the SPSS output in appendix 20. This means that the organisational level negatively influences the relationship between CC, EO and OP by 15.9%.

Table 34: Conditional Effects of EO Predicting OP in the Presence of CC

Conditional effects of the focal predictor at values of the moderator(s):					
	R2-chng	F	df1	df2	p
X*W	0.001	0.282	1.000	132.000	0.596

From the above table, R^2-change = 0.001, $F(1,132)=0.282$, p = 0.596 which is not significant. This means that in the CC and EO interaction explains 0.01% of the variability of OP and therefore not significant.

Figure 12 illustrates the moderating effect of CC on EO-OP at below-average levels of CC, at average levels of CC and at above-average levels of CC.

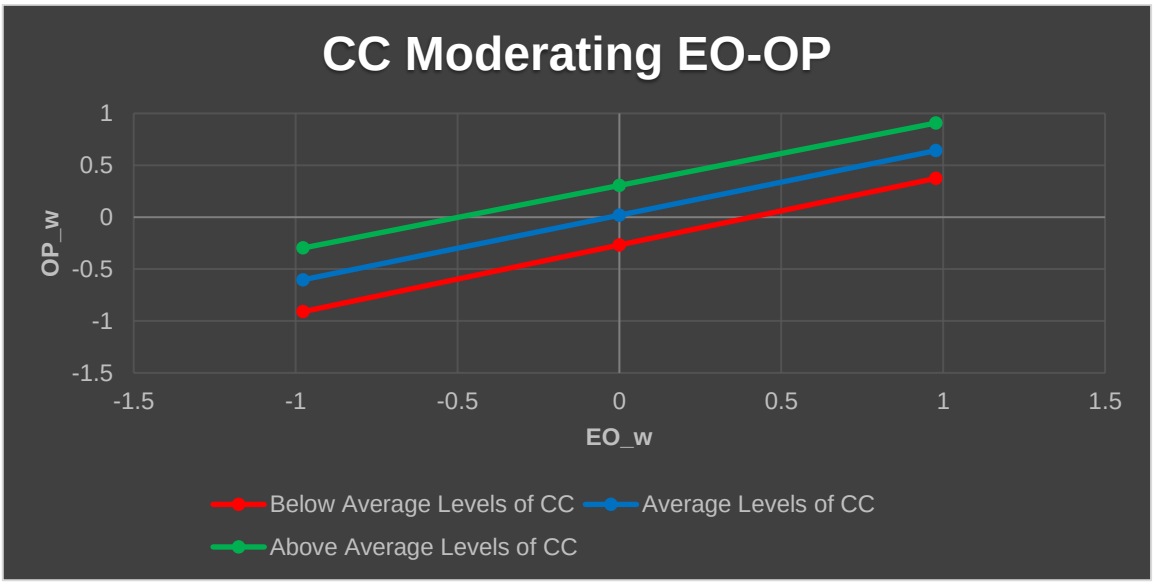

Figure 12 Moderating effect of CC on EO-OP

The above figure illustrates that CC does not influence the relationship between EO and OP; therefore, CC has no moderating effect on the relationship between EO and OP.

5.6.5. H4: Resource fluidity moderates the relationship between EO and OP

Model 1 of Process v3.5 in SPSS was selected to investigate the moderating effect of RF on the EO-OP relationship. The results are presented in Table 35, Table 36, Table 37

Table 35: Model Summary for RF moderating EO-OP

Model Summary						
R	R-sq	MSE	F	df1	df2	p
0.885	0.782	0.221	94.956	5.000	132.000	0.000

The overall model summary results for EO, OP and RF indicates that $F(5,132) = 94.956$, $p = 0.000$, $R^2 = 0.782$. This means that the model is significant and that 78.2% of the variability is explained by the RF and EO variables on OP.

Table 36: Model Results for RF moderating EO-OP

Model						
	Coeff (b)	se	t	p	LLCI	ULCI
constant	0.067	0.241	0.276	0.783	-0.410	0.543
EO_w	0.580	0.064	9.115	0.000	0.454	0.706
RF	0.352	0.061	5.815	0.000	0.232	0.472
Int_1	-0.060	0.038	-1.582	0.116	-0.134	0.015
OrgSize	0.127	0.088	1.432	0.155	-0.048	0.301
OrgLevel	-0.099	0.068	-1.469	0.144	-0.233	0.034
Product terms key: Int_1: EO_w * RF						

From the above model, the results for EO was b=0.580, $t(132)$=9.115, p = 0.00 which is significant. This implies that as the level of EO increases, OP increases correspondingly, by 58%. The results for RF was b=0.352, $t(132)$=5.815, p = 0.00 which is significant. This implies that as the level of RF increases, OP increases correspondingly, by 35.2%. The results for RF and EO interaction was b=-0.060, $t(132)$= -1.582, p = 0.116 which is not significant. Furthermore, the results for organisational size as a control variable was b=0.127, $t(132)$= 1.432, p = 0.155 which is not significant. The results for organisational level was b= -0.099, $t(132)$= -1.469, p = 0.144 which is not significant as presented in the SPSS output in appendix 21.

Table 37: Conditional Effects of EO Predicting OP in the Presence of RF

Conditional effects of the focal predictor at values of the moderator(s):					
	R2-chng	F	df1	df2	p
X*W	0.004	2.504	1.000	132.000	0.116

From the above table, R2chang = 0.004, $F(1,132)=2.504$, p = 0.116 which is not significant. This means that in the RF and EO interaction explains 0.04% of the variability of OP and is therefore not significant.

Figure 12 illustrates the moderating effect of RF on EO-OP at below-average levels of RF, at average levels of RF and at above-average levels of RF.

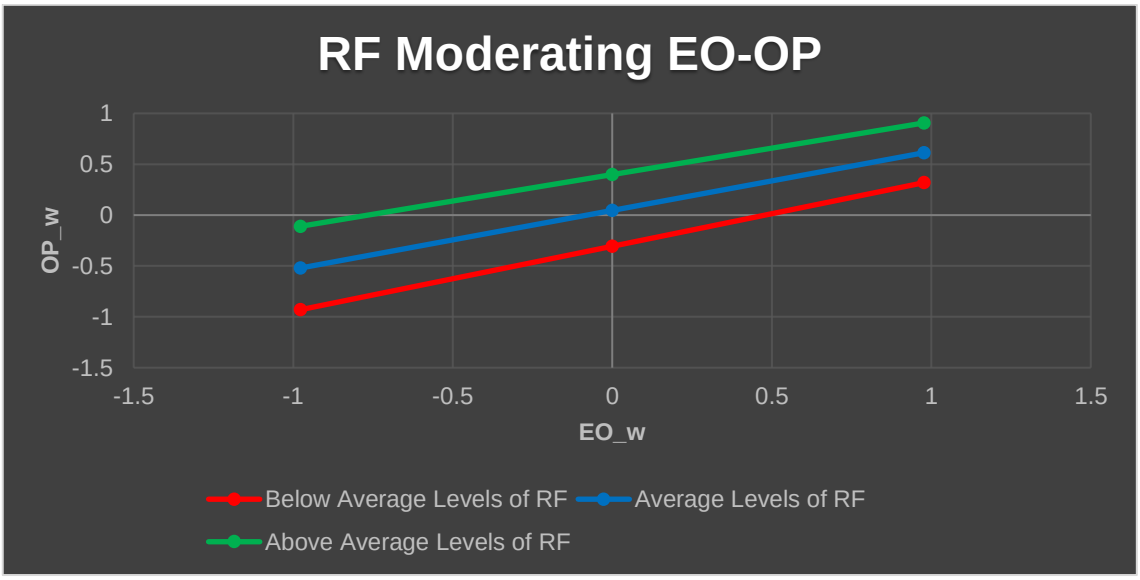

Figure 13 Moderating effect of RF on EO-OP

The above figure illustrates that RF does not influence the relationship between EO and OP; therefore, RF has no moderating effect on the relationship between EO and OP.

5.6.6. H5: SA moderates the relationship between EO and OP

Model 1 of Process v3.5 in SPSS was selected to investigate the moderating effect of SA on the EO-OP relationship. The results are presented in Table 38, Table 39, Table 40

Table 38: Model Summary for SA moderating EO-OP

Model Summary						
R	R-sq	MSE	F	df1	df2	p
0.888	0.789	0.215	98.425	5.000	132.000	0.000

The overall model summary results for EO, OP and SA indicates that $F(5,132) = 98.425$, $p = 0.000$, $R^2 = 0.789$. This means that the model is significant and that 78.9% of the variability is explained by the RF and EO variables on OP.

Table 39: Model Results for SA moderating EO-OP

Model						
	Coeff (b)	se	t	p	LLCI	ULCI
constant	0.217	0.235	0.927	0.356	-0.247	0.681
EO_w	0.486	0.073	6.637	0.000	0.341	0.631
SA_w	0.438	0.069	6.335	0.000	0.301	0.575
Int_1	-0.033	0.037	-0.889	0.376	-0.107	0.041
OrgSize	0.045	0.086	0.527	0.599	-0.125	0.215
OrgLevel	-0.115	0.067	-1.729	0.086	-0.247	0.017
Product terms key: Int_1: EO_w * SA_w						

From the above model, the results for EO was $b=0.486$, $t(132)=6.637$, $p = 0.00$ which is significant. This implies that as the level of EO increases, OP increases correspondingly, by 48.6%. The results for SA was $b=0.438$, $t(132)=6.6335$, $p = 0.00$ which is significant. This implies that as the level of SA increases, OP increases correspondingly, by 43.8%. The results for SA and EO interaction was $b=-0.033$, $t(132)= -0.889$, $p = 0.376$ which is not significant. Furthermore, the results for organisational size as a control variable was $b=0.045$, $t(132)= 0.527$, $p = 0.599$ which is not significant. The results for organisational level was $b= -0.115$, $t(132)= -1.729$, $p = 0.086$ which is not significant as presented in the SPSS output in appendix 21.

Table 40: Conditional Effects of EO Predicting OP in the Presence of SA

Conditional effects of the focal predictor at values of the moderator(s):					
	R2-chng	F	df1	df2	p
X*W	0.001	0.790	1.000	132.000	0.376

From the above table, R2chang = 0.001, $F(1,132)=0.790$, p = 0.376 which is not significant. This means that in the SA and EO interaction explains 0.01% of the variability of OP and is therefore not significant.

Figure 14 illustrates the moderating effect of SA on EO-OP at below-average levels of SA, at average levels of SA and above-average levels of SA.

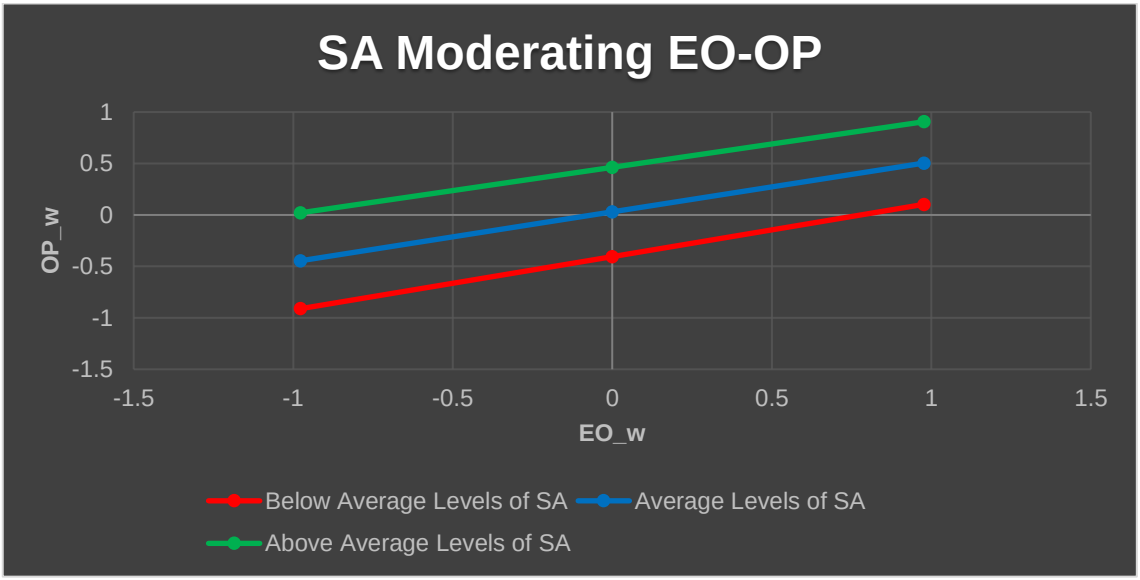

Figure 14 Moderating effect of SA on EO-OP

The above figure illustrates that that SA does not influence the relationship between EO and OP, therefore, SA has no moderating effect on the relationship between EO and OP.

5.7. Conclusion

Chapter 5 presented the results for the data collection process and data analysis. Additionally, it presented the results for the statistical analysis and the descriptive statistics. Lastly, it presented the results of the hypotheses testing that was conducted. The next chapter provides a discussion of the results.

CHAPTER 6

DISCUSSION OF RESULTS

6.1. Introduction

Chapter 6 presents a summary of the results and a discussion of results from the data collection process. Additionally, it presents a discussion of the results for the statistical analysis and descriptive statistics. Lastly, it presents a discussion of the results from the hypotheses testing that was conducted. Table 41 presents a summary of the results.

6.2. Summary of Results

Table 41 presents a summary of the results, as presented in chapter 5.

Table 41: Summary of Results

Section	Sub-Section	Results Summary
Data Analysis	Data Collection	The raw sample size comprised of 235 respondents; however, after removing participants that did not meet the qualifying criteria and the respondents with missing data, that final sample size was reduced to 138 respondents.
Statistical Analysis	Normality	The results for the tests for Skewness, Kurtosis and Shapiro-Wilk, yield mixed results. However, after examination of the normal Q-Q plots and dealing with outliers, the data were treated as normal.
	Outliers	Outliers were dealt with using the winsoring processes of which was conducted twice. The first instance consisted of winsorising 63 outliers in the prepared data set. The second instance was required to satisfy the assumptions for the regression tests and involved winsoring seven outliers that resulted from the dimension reduction process.

	Validity	Convergent validity was confirmed using CFA, whilst discriminant validity was confirmed using correlation.
	Reliability	Reliability was confirmed using the mathematical formula for composite reliability.
	Structural Model Assessment	The structural model was confirmed as a good fit by using the model fit indices.
	Dimension Reduction	Factorised variables were confirmed to be in the excellent range by using the KMO tests.
Descriptive Statistics	Demographics	Insights into the demographics of the population such as organisational size, organisational level, gender, education level and tenure were provided through the descriptive statistics.
	Control Variables	The results confirmed that although EO and SA are present in across SMEs and CEs, that their strengths in relation to OP differ across these organisational types.
		The results confirmed that although EO and SA are present across different organisational levels, their strengths differ across these levels.
Hypothesis Testing	H1	A positive relationship between EO and OP was established, and it was confirmed the EO predicts OP.
	H2, H3, H4, H5,	All variables were confirmed to be significant; however, the moderation effect of the variables was not significant.

6.3. Data Collection

The final sample size comprised of 138 respondents. Although this sample size is still considered low in relation to the recommended 200 (Hair et al., 2012), the sample size was considered as suitable to perform descriptive and inferential statistical analysis (Deutskens et al., 2004) as it was in the range of similar studies, for example, Chen et al. (2020) used a sample size of 111 in their study which investigated the relationship between EO and international performance, whilst, Shan et al. (2016) used a sample size of 153 in their study which investigated the moderating effects of innovation speed on the EO-OP relationship. However, a consequence of the dearth of a sample frame at the outset of the data gathering process, implies that these findings cannot be generalised to the larger population (Vehovar et al., 2016).

6.4. Statistical Analysis

The data presented a negative skewness which is a strong indicator of bias (Bai & Ng, 2015). Although this was mitigated by the winsoring process, which enabled the data to be treated as normal (Davidov, Jelsema, & Peddada, 2018), there was still a

degree of bias underlying the data (DeCarlo, 1997). One question from the autonomy dimension, and one question from OP variable was removed from the study to establish convergent validity using CFA. Although this method was different from Cronbach's alpha, the results confirmed that the measurement instrument used in the study was valid (Thompson, 2004). Furthermore, discriminant validity was established as the results from the discriminant validity tests indicated that although all dimensions correlate, that there are discriminant differences between them (Hair Jr et al., 2014). The composite reliability tests of which indicates all of the dimensions measured are within the 'good' range, thus establishing composite reliability. These results indicated that although the existing scales were developed in different contexts, they are both valid and reliable for the context of this study (Bonett & Wright, 2015).

6.5. Descriptive Statistics

6.5.1. Population Demographics

The survey collected five variables that were examined to determine the biographic profile of the respondents. These included gender, education level, organisational level, organisational size, and tenure. The results indicated that the gender representation of the population comprised of 57% of male respondents. Additionally, 63% of the population that possessed postgraduate diplomas or degrees, followed by 28% with diplomas or degrees and 9% with secondary school education. Therefore, we can infer that the population of this study was predominantly male with a postgraduate level of education.

The organisational level results indicated that 56% of the population of middle management, with 36% representing senior and executive management, followed by junior management with 9%. This spread of data could be a source of the underlying bias because EO (Wales, 2016) and SA (Xing et al., 2020) manifests differently at different organisational levels. For example, at senior levels of an organisation EO may manifest in the form of market-driven innovations, at middle levels, it may manifest in the form of customer-driven product innovations, whilst at junior levels, it may manifest in the form of internally driven innovations(Covin et al., 2020). Similarly, at senior levels of an organisation, SA may manifest in the form of a higher

concentration of focus toward strategy formulation and reviews, whilst in middle and junior organisational levels, there may be a higher concentration of focus toward the tactical implementation of the strategy (Doz, 2020). The population of this study comprises of representation predominately from middle levels of the organisation. Therefore, we can infer that the responses may be biased toward the tactical implementation of an organisations customer-driven product strategy.

The results indicated that the organisational size category comprised of 62% of representation from CEs, whilst there was a 38% representation from SMEs. The context of the current economic environment that has been affected by the global pandemic, among other factors have created a turbulent business environment (Ahammad et al., 2020). Hence, the higher concentration of respondents for CEs may be explained by Hagen et al. (2019) notion that SMEs that have not been able to adapt to the turbulent external conditions have not been able to survive, due to their limited access to resources. However, the limitations outlined in chapter 4 suggest that this finding may not be reflective of the general population. Furthermore, the higher concentration of CEs could be a potential source of bias as the CEs exhibit higher degrees of complexities in its operations relative to SMEs which introduces a level of bias toward the degree of the presence of EO (Covin & Lumpkin, 2011) and SA (e Cunha et al., 2020) across these organisations.

Lastly, the results for the tenure category, indicated that 42% of the population were employed at their organisations for 1-5 years, followed by 6-10 years and 15 or more years at 20% each, with 11-14 years close behind on 18%. The higher concentration of respondents from the 1-5 years category suggests that the respondents were in the employment of their organisations for a period long enough to observe and interact with the variables that were investigated in this study (Donbesuure et al., 2020). However, although this population may improve the integrity of the responses, a level of bias is introduced as employees that are with organisations for more extended periods demonstrate higher levels of familiarity bias (Vehovar et al., 2016)

6.5.2. Organisational Size as a Control Variable

From the literature, we understand that EO (Knight, 1997) and SA (e Cunha et al., 2020) is present among SMEs and CEs. However, we do not know if the variability of EO and SA across these organisational types are approximately equal (Covin & Lumpkin, 2011; e Cunha et al., 2020). The results from the examination of EO in SMEs and CEs indicated that the EO is present across both these organisational sizes, however, although the variability of EO in SMEs and CEs are approximately equal, the levels of EO in SMEs is statistically significantly different from CEs, with SMEs demonstrating higher levels of EO.

This finding is consistent with the notion that, as compared to CEs, SMEs are more entrepreneurial as due to its limited access to resources, it has to consistently strive for organisational growth through entrepreneurial activity (Vaillant & Lafuente, 2019). Although this finding suggests that there are gaps in terms of the progress of the development of EO in CEs, CEs are encouraged to continue to build EO as an organisational capability as the findings from this study are consistent with (Eshima & Anderson, 2017) which suggests that CEs may develop a superior competitive advantage developing EO as a capability.

The concept of SA is suggested to be present across SMEs and CEs; furthermore, it is suggested that these organisations exhibit different levels of SA as they are in different levels of maturity in the development to SA as capability(e Cunha et al., 2020). However, the results from the examination of SA in SMEs and CEs indicated that the SA is present across both these organisational sizes, however, although the variability of SA in SMEs and CEs are approximately equal, with SA demonstrating higher levels in SMEs, the levels of SA in SMEs is are not statistically significantly different from CEs. This finding means that, in comparison with the levels of EO across SMEs and CEs, the levels of SA are more approximately evenly distributed between SMEs and CEs (Wegner, 2016).

Therefore, this finding does not support (e Cunha et al., 2020) notion that SA is exhibited with different levels of maturity across SMEs and CEs. However, this finding may be explained the turbulent business environment, which has forced organisations, both SMEs and CEs, to revise and adapt their strategies such that

they can survive the events of the global pandemic (Doz, 2020). Thus, the turbulent business environment may have created a bias toward the level of SA exhibited by SMEs and CEs.

6.5.3. Organisational Level as a Control Variable

From the literature, we understand that EO (Wales, 2016) and SA (Xing et al., 2020) is present across the different levels of an organisation regardless if the organisation is an SME or CE; however, we do not know if the variability of EO and SA across these organisational levels are approximately equal (Covin et al., 2020; Doz, 2020). Covin et al. (2020) suggested that the concept of EO is present across the different levels of an organisation. Furthermore, Eshima & Anderson (2017) suggested that organisations exhibit different levels of EO in the different levels of the organisation as organisations exhibit different levels of maturity in the development of EO as a capability. However, the results from the examination of EO in across the different organisational levels indicated that the EO is present across these organisational levels. However, although the variability of EO across the different organisational levels are approximately equal, with junior levels of the organisation demonstrating higher levels of EO, the levels of EO across these organisational levels are not statistically significantly different. This finding means that the levels of EO are more evenly distributed across the different organisational levels (Wegner, 2016).

Therefore, although this finding supports Covin et al. (2020) notion that EO is present across the different levels of an organisation, it does not support Eshima and Anderson (2017) notion that the levels of EO are different across these organisational levels. However, this finding may be explained the turbulent business environment, which has forced organisations to turn to EO as a potential source of growth that would enable the organisations to improve its OP and increase its chances of survival (Covin & Wales, 2019). Therefore, the turbulent business environment may have created a bias toward the level of EO that is exhibited across the different levels of an organisation.

The results from the examination of SA across the different organisational levels indicated that the SA is present across both these organisational levels, however, although the variability of SA across these organisational levels is approximately

equal, the levels of SA in across these organisational levels are statistically significantly different, with junior and senior levels of an organisation demonstrating higher levels of SA as compared to the middle levels of an organisation which exhibit significantly lower levels of SA.

This finding is consistent with Xing et al. (2020) notion that SA is present across different levels of an organisation as well as Doz (2020) notion that organisations exhibit different levels of maturity of SA through the different organisation levels. Furthermore, higher levels of SA is exhibited among junior levels of an organisation, followed by senior levels. The turbulent business environment may explain this finding, as at first, the global pandemic forced organisations to adapt and revise their strategies. However, after a period of time, organisations focus tends to lean toward the tactical execution of these revised and adapted strategies. Therefore, higher levels of SA may be present among junior levels of an organisation.

6.6. Hypothesis Testing

6.6.1. H1: There is a relationship between EO and OP

This hypothesis aimed to examine the existence of a relationship between EO and OP. The original three dimensions of EO are risk-taking, innovativeness and proactiveness as proposed by (Miller, 1983), were unidimensional, which means that an organisation must exhibit all three dimensions to be considered entrepreneurially orientated. However, Lumpkin and Dess (1996) advocated that EO comprises of two additional dimensions of competitive aggressiveness and autonomy and that it is multidimensional, which means that an organisation may exhibit different combinations of these dimensions to be considered as entrepreneurially orientated.

This study adopted the position of Lumpkin and Dess (1996), and the five dimensions were factorised such that the EO variable could be measured, however, through the dimension reduction process, it was observed that the KMO test results were 0.80 which is in the excellent range and implies that both the SMEs and CEs have an above-average tendency toward EO. Therefore, this finding supports the Vaillant and Lafuente (2019) notion that organisation are more entrepreneurial in turbulent

markets as they have to find new sources of organisational growth such that they can survive.

The results for tests for H1 indicated that there is a positive relationship between EO and OP and that the level of prediction of EO on OP is 'good'. However, the adjusted R2, which attempts to correct R2 for bias, is 0.714, which implies that EO explains 71.4% of the variability of OP. However, although studies such as Hughes and Morgan (2007), Lechner and Gudmundsson (2014) and Rauch et al. (2009) determined that the relationship between EO and OP is contingent, the findings from this study are more aligned with Becherer and Maurer (1997), Dimitratos et al. (2004) and Covin and Wales (2019); who found a strong correlation between EO and OP. This finding supports Eshima and Anderson (2017) notion which suggests that organisations that have above-average levels of EO may develop their micro-foundational capabilities quicker than their competitors which may create a superior competitive advantage developing EO as a capability. Furthermore, there is a significant difference between the levels of EO in SMEs and CEs, and this suggests that due to the strong correlation between EO and OP that if EO the levels of EO are improved in CEs that OP could improve correspondingly. Therefore, this finding supports that posits by Covin and Lumpkin (2011) and Vaillant and Lafuente (2019) who advocate that the levels of EO should be improved in CEs as promising results have been achieved through improving the levels of EO in SMEs.

Lastly, although this is a strong correlation between EO and OP, there is 28.6% of the variability that is unexplained which consistent with findings from similar studies (Becherer & Maurer, 1997; Covin & Wales, 2019; Dimitratos et al., 2004). This finding supports the calls from Covin and Wales (2019) and Engelen et al. (2014) who urge scholars to examine the moderating effects of variables that support EO as an organisational capability.

6.6.2. H2: Strategic sensitivity moderates the relationship between EO and OP

Strategic sensitivity is the organisation's intensity of attention, awareness and sharpness of perception in identifying the emerging trends and converging forces (Weber & Tarba, 2014); and making sense of these strategic situations such they that can be leveraged for organisational benefit as they develop (Doz & Kosonen, 2010). In the context of this study, strategic sensitivity was considered a micro-foundational dynamic capability of which drives the organisation's strategic sensitivity capability (Fourné et al., 2014; Teece, 2018). Furthermore, Niemand et al. (in press) advocated that the strategic sensitivity capability supports the EO capability, thus improving OP, whilst Xing et al., (2020) hypothesised that strategic sensitivity moderates the EO capability. Therefore, the objective of this hypothesis was to determine if strategic sensitivity moderates the relationship between EO and OP.

The results indicated that the EO, OP and SS model was significant and that R^2 = 0.760, which means that 76.0% of the variability is explained by the SS and EO variables on OP. Additionally, when the level of EO increases, OP increases correspondingly, by 62.5%, whilst as the level of SS increases, OP increases correspondingly, by 32%. However, the results for SS and EO interaction on OP were b=0.044, t(132)= 1.121, p = 0.264 which is not significant. Additionally, the R^2-change=0.002, which means that the SS-EO interaction explains 0.02% of the variability of OP. Lastly, the results for organisational size as a control variable was b=-0.011, t(132)=-0.113, p = 0.910 which is not significant and the results for organisational level was b = -0.088, t(132) = -1.236, p=0.219 which is not significant.

These findings are aligned with Niemand et al. (in press) notion in that the strategic sensitivity capability combines well with the EO capability to improve OP. This combination of DCs predicts OPs variability by approximately 76%, of which strategic sensitivity (32%) provides a supporting role to EO (62.5%). However, the findings from the strategic sensitivity and EO interaction was not significant as it explains 0.02% of the variability of OP. Therefore, these findings do not support Xing et al. (2020) notion that strategic sensitivity moderates the EO-OP relationship. Furthermore, the control variables of organisational size and organisational level were not significant in the strategic sensitivity-EO interaction, which indicates that strategic sensitivity supports EO in improving OP, regardless of the size of the organisation (e Cunha et al., 2020) and level within the organisation (Doz, 2020).

However, strategic sensitivity does not moderate the relationship between EO and OP.

In the context of this study, the finding that strategic sensitivity does not moderate the relationship between EO and OP could be explained by a closer examination of the internal environment. EO is suggested to be a strategic layer DC, which is a higher-order DC (Swoboda & Olejnik, 2016) as compared to strategic sensitivity, which is considered a micro-foundational DC(Niemand et al., in press). Although Eshima and Anderson (2017) suggested that these DCs may combine such that a micro-foundational DC may moderate a strategic layer DC, this finding does not support that view. However, Helfat and Peteraf (2015) view that the micro-foundational DC supports a strategic layer DC is supported as these findings indicate that SS supports EO in improving OP.

Therefore, for hypothesis two, we can conclude that organisations that have been forced to revise and adapt their strategies such that they can find new opportunities as sources of growth for survival (Doz, 2020; Vaillant & Lafuente, 2019), require both the strategic DC, EO and the micro-foundational DC, strategic sensitivity, as although strategic sensitivity does not moderate the relationship between EO and OP, strategic sensitivity supports EO in improving OP.

6.6.3. H3: Collective commitment moderates the relationship between EO and OP

CC refers to the leadership team's ability to reduce the politics such that the leaders can make bold decisions fast as well as obtain the commitment from other involved stakeholders (Doz & Kosonen, 2010). In the context of this study, CC was considered a micro-foundational dynamic capability of which drives the organisation's CC capability (Fourné et al., 2014; Teece, 2018). Furthermore, Ferreira et al. (2020) advocated that the CC capability supports the EO capability, thus improving OP, whilst Xing et al. (2020) hypothesised that CC moderates the EO capability. Therefore, the objective of this hypothesis was to determine if CC moderates the relationship between EO and OP.

The results indicated that the EO, OP and CC model was significant and that R^2 = 0.761, which means that 76.1% of the variability is explained by the CC and EO variables on OP. Additionally, when the level of EO increases, OP increases correspondingly, by 63.7%, whilst as the level of CC increases, OP increases correspondingly, by 28.7%. However, the results for CC and EO interaction on OP were *b*=-0.021, *t*(132)= -0.531, *p* = 0.596 which is not significant. Additionally, the R^2-change=0.001, which means that the CC-EO interaction explains 0.01% of the variability of OP. Lastly, the results for organisational size as a control variable was *b*=0.040, *t*(132)= 0.440, *p* = 0.660 which is not significant. However, the results for the organisational level control variable was b = *b*= -0.159, *t*(132)= -2.230, *p* = 0.027 which is significant. This finding means that the organisational level control variable negatively influences the relationship between CC, EO and OP by 15.9%.

These findings are aligned with Ferreira et al., (2020) notion in that the CC capability combines well with the EO capability to improve OP. This combination of DCs predicts OPs variability by approximately 76.1%, of which CC (28.7%) provides a supporting role to EO (63.7%). However, the findings from the CC and EO interaction was not significant as it explains 0.01% of the variability of OP. Therefore, these findings do not support Xing et al. (2020) notion that CC moderates the EO-OP relationship. Furthermore, the control variable, the organisational size was not significant in the CC-EO interaction, which indicates that CC supports EO in improving OP, regardless of the size of the organisation (e Cunha et al., 2020). However, the control variable, the organisational level was significant in the CC-EO interaction, which indicates that negatively influences the CC-EO interaction on OP.

In the context of this study, the finding that CC does not moderate the relationship between EO and OP could be explained by a closer examination of the internal environment. EO is suggested to be a strategic layer DC, which is a higher-order DC (Swoboda & Olejnik, 2016) as compared to CC, which is considered a micro-foundational DC(Ferreira et al., 2020). Although Eshima and Anderson (2017) suggested that these DCs may combine such that a micro-foundational DC may moderate a strategic layer DC, this finding does not support that view. However, Helfat and Peteraf (2015) view that the micro-foundational DC supports a strategic layer DC is supported as these findings indicate that CC supports EO in improving OP.

Furthermore, the finding that CC negatively influences the CC, EO, OP interaction at middle levels of the organisation may be explained by examining both the internal and external environments. As organisations respond to an external environment that is in a constant state of change (Jantunen et al., 2005), the speed of which they respond is essential to maximising the value captured from the opportunities that may be identified from these changes(Shan et al., 2016). These opportunities are generally identified at top levels of organisations(Niemand et al., in press).; however, the speed of which the information is disseminated to middle levels of the organisation may be lagging (Brueller, Carmeli, & Drori, 2014). Therefore, it can be inferred that due to the limitation of the cross-sectional nature of this study, that at the time the data was collected, that the middle levels of the organisation may not be as collectively committed in the pursuit of the new opportunity as the dissemination of information regarding the new opportunity may have been lagging.

Therefore, for hypothesis three, we can conclude that organisations that have been forced to revise and adapt their strategies such that they can find new opportunities as sources of growth for survival (Doz, 2020; Vaillant & Lafuente, 2019), require both the strategic DC, EO and the micro-foundational DC, CC, as although CC does not moderate the relationship between EO and OP, CC supports EO in improving OP.

6.6.4. H4: Resource fluidity moderates the relationship between EO and OP

Resource fluidity refers the organisation's ability to reconfigure its business systems and rapidly redeploy resources such that it can respond to the decisions taken from leadership team once they have made sense of the strategic situations (Doz & Kosonen, 2010). In the context of this study, resource fluidity was considered a micro-foundational dynamic capability of which drives the organisation's resource fluidity capability (Fourné et al., 2014; Teece, 2018). Furthermore, Wang et al. (2020) advocated that the resource fluidity capability supports the EO capability, thus improving OP, whilst Xing et al. (2020) hypothesised that resource fluidity moderates the EO capability. Therefore, the objective of this hypothesis was to determine if resource fluidity moderates the relationship between EO and OP.

The results indicated that the EO, OP and resource fluidity model was significant and that R^2 = 0.782, which means that 78.2% of the variability is explained by the

resource fluidity and EO variables on OP. Additionally, when the level of EO increases, OP increases correspondingly, by 58%, whilst as the level of resource fluidity increases, OP increases correspondingly, by 35.2%. However, the results for resource fluidity and EO interaction on OP were *b*=-0.060, *t*(132)= -1.582, *p* = 0.116 which is not significant. Additionally, the R^2-change=0.004, which means that the resource fluidity -EO interaction explains 0.04% of the variability of OP. Lastly, the results for organisational size as a control variable was *b*=0.127, *t*(132)= 1.432, *p* = 0.155 which is not significant and the results for organisational level was *b*= -0.099, *t*(132)= -1.469, *p* = 0.144 which is not significant.

These findings are aligned with Wang et al. (2020) notion in that the resource fluidity capability combines well with the EO capability to improve OP. This combination of DCs predicts OPs variability by approximately 78.2%, of which resource fluidity (35.2%) provides a supporting role to EO (58%). However, the findings from the resource fluidity and EO interaction was not significant as it explains 0.04% of the variability of OP. Therefore, these findings do not support Xing et al. (2020) notion that resource fluidity moderates the EO-OP relationship. Furthermore, the control variables of organisational size and organisational level were not significant in the resource fluidity -EO interaction, which indicates that resource fluidity supports EO in improving OP, regardless of the size of the organisation (e Cunha et al., 2020) and level within the organisation (Doz, 2020). However, resource fluidity does not moderate the relationship between EO and OP.

In the context of this study, the finding that resource fluidity does not moderate the relationship between EO and OP could be explained by a closer examination of the internal environment. EO is suggested to be a strategic layer DC, which is a higher-order DC (Swoboda & Olejnik, 2016) as compared to resource fluidity, which is considered a micro-foundational DC(Wang et al., 2020). Although Eshima and Anderson (2017) suggested that these DCs may combine such that a micro-foundational DC may moderate a strategic layer DC, this finding does not support that view. However, Helfat and Peteraf (2015) view that the micro-foundational DC supports a strategic layer DC is supported as these findings indicate that resource fluidity supports EO in improving OP.

Therefore, for hypothesis four, we can conclude that organisations that have been forced to revise and adapt their strategies such that they can find new opportunities

as sources of growth for survival (Doz, 2020; Vaillant & Lafuente, 2019), require both the strategic DC, EO and the micro-foundational DC, resource fluidity, as although resource fluidity does not moderate the relationship between EO and OP, resource fluidity supports EO in improving OP.

6.6.5. H5: SA moderates the relationship between EO and OP

SA is a dynamic meta-capability that creates and deploys a dynamic balance between sensing local opportunities, enacting global complementarities, and capturing local value over time (Doz & Kosonen, 2010). In the context of this study, SA was considered a strategic layer dynamic capability of which drives the organisation's SA capability (Fourné et al., 2014; Teece, 2018). Furthermore, Kohtamäki et al. (2020) advocated that the SA capability supports the EO capability, thus improving OP, whilst Xing et al. (2020) hypothesised that SA moderates the EO capability. Therefore, the objective of this hypothesis was to determine if SA moderates the relationship between EO and OP.

The results indicated that the EO, OP and SA model was significant and that R^2 = 0.789, which means that 78.9% of the variability is explained by the SA and EO variables on OP. Additionally, when the level of EO increases, OP increases correspondingly, by 48.6%, whilst as the level of SA increases, OP increases correspondingly, by 43.8%. However, the results for SA and EO interaction on OP were b=-0.033, t(132)= -0.889, p = 0.376 which is not significant. Additionally, the R^2-change=0.001, which means that the SA-EO interaction explains 0.01% of the variability of OP. Lastly, the results for organisational size as a control variable was b=0.045, t(132)= 0.527, p = 0.599 which is not significant and the results for organisational level was b= -0.115, t(132)= -1.729, p = 0.086 which is not significant.

These findings are aligned with Kohtamäki et al. (2020) notion in that the SA capability combines well with the EO capability to improve OP. This combination of DCs predicts OPs variability by approximately 78.9%, of which SA (43.8%) provides a supporting role to EO (48.6%). However, the findings from the SA and EO interaction was not significant as it explains 0.01% of the variability of OP. Therefore, these findings do not support Xing et al. (2020) notion that SA moderates the EO-OP relationship. Furthermore, the control variables of organisational size and

organisational level were not significant in the SA-EO interaction, which indicates that SA supports EO in improving OP, regardless of the size of the organisation (e Cunha et al., 2020) and level within the organisation (Doz, 2020). However, SA does not moderate the relationship between EO and OP.

In the context of this study, the finding that SA does not moderate the relationship between EO and OP could be explained by a closer examination of the internal environment. EO is suggested to be a strategic layer DC, which is a higher-order DC (Swoboda & Olejnik, 2016), however, SA, is also considered a strategic, higher-order DC (Kohtamäki et al., 2020). Although Eshima and Anderson (2017) suggested that these DCs may combine such that a strategic layer DC may moderate another strategic layer DC, this finding does not support that view. However, Helfat and Peteraf (2015) view that the strategic layer DC supports a strategic layer DC is supported as these findings indicate that SA supports EO in improving OP.

Furthermore, an examination of the SA, EO, OP model, indicates that although SA (43.8%) supports EO (48.6%) in improving OP, that the level of support that SA provides is closer to EO prediction of OP in the presence of SA. Due to the consideration that both SA and EO are strategic layer DCs, it can be inferred that both SA and EO are approximately equally needed for organisations to improve OP (Hayes, 2017).

Therefore, for hypothesis five, we can conclude that organisations that have been forced to revise and adapt their strategies such that they can find new opportunities as sources of growth for survival (Doz, 2020; Vaillant & Lafuente, 2019), require both the strategic DC, EO and the strategic DC, SA, as although SA does not moderate the relationship between EO and OP, SA and EO are approximately equally required in order to improve OP.

6.7. Summary of Results from Hypothesis Testing

In summary, the results from the hypothesis testing indicated that H_1 was significant, whilst H_2, H_3, H_4, and H_5 were not significant. Below is a graphical representation summarising the from the hypothesis testing.

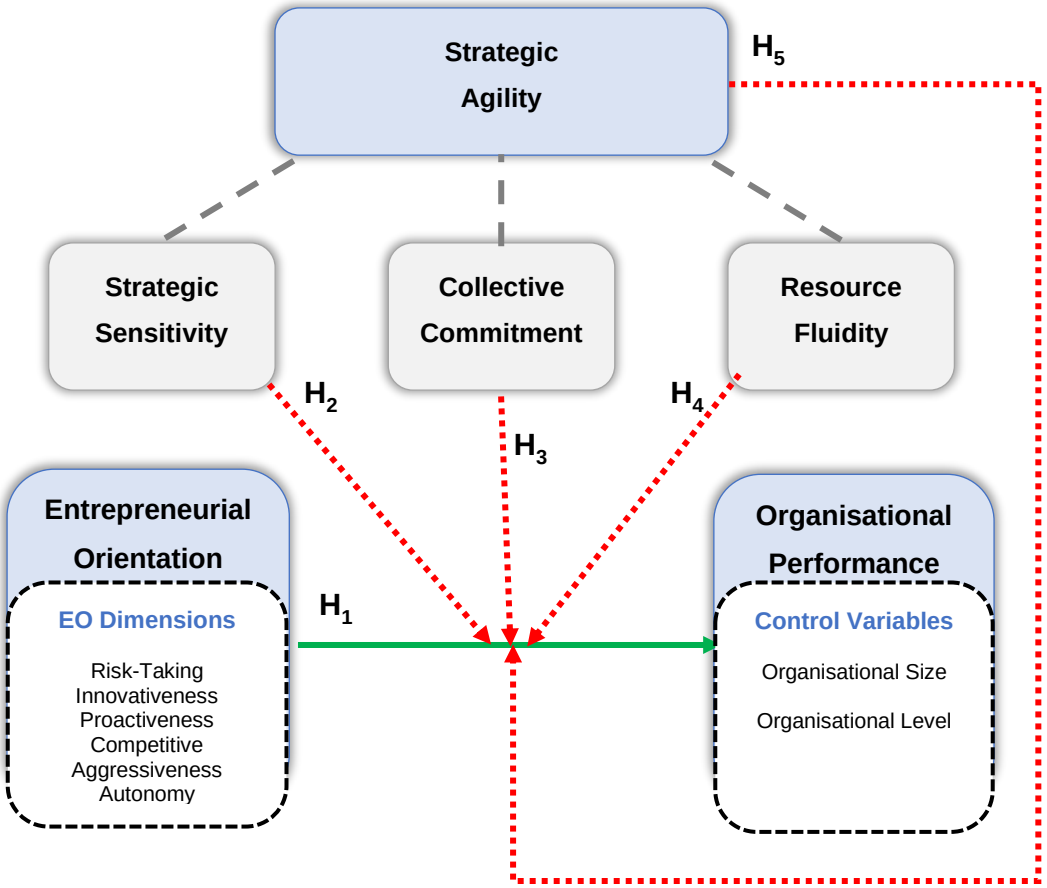

Figure 15: Summary of Results from Hypothesis Testing

6.8. Conclusion

Chapter 6 presented a summary of the results and a discussion of results from the data collection process. Additionally, it presented a discussion of the results for the statistical analysis and descriptive statistics. Lastly, it presented a discussion of the results from the hypotheses testing that was conducted. The next chapter provides the conclusions and a discussion of recommendations for future research.

CHAPTER 7

CONCLUSIONS AND RECOMMENDATIONS

7.1. Introduction

Chapter 7 underlines the principle conclusions and provides a discussion on the implications of the research for business and management. Additionally, it provides a discussion on the implications of research for academia and a discussion of the limitations of the research. Lastly, it provides recommendations for future research in the fields of entrepreneurship and strategy.

7.2. Principal Conclusions

The existing instruments for the empirical investigation of SA, EO, and OP in SMEs and CEs in a South African context was validated. Although the instrument was used in a different context in different studies, the instrument exhibited good reliability in the context of this study. The study advanced the works by Covin and Wales (2019) who advocated that although there is a strong correlation between EO and OP, this relationship is moderated by variables internal or external to the organisation. Additionally, the study advanced the works of (Xing et al., 2020) who advocated that SA moderates the team EO-OP relationship and therefore proposed that SA moderates the EO-OP relationship.

The hypotheses that were tested are presented in chapter 3. The first hypothesis indicated a strong correlation between EO and OP, which was consistent with findings from similar studies (Becherer & Maurer, 1997; Dimitratos et al., 2004). Additionally, both the SMEs and CEs, have an above-average tendency toward EO, which suggests that organisations are more entrepreneurial in turbulent markets as they have to find new sources of organisational growth such that they can survive (Vaillant & Lafuente, 2019). Furthermore, organisations that have above-average levels of EO may develop their micro-foundational capabilities quicker than their competitors, which may create a superior competitive advantage (Eshima & Anderson, 2017). Lastly, SMEs exhibit higher levels of EO as compared the CEs

which suggests that due to the strong correlation between EO and OP, that if the levels of EO are improved in CEs that OP could improve correspondingly (Covin & Lumpkin, 2011; Vaillant & Lafuente, 2019).

The second hypothesis found that strategic sensitivity does not moderate the relationship between EO and OP. Additiontionally, it did not support Eshima and Anderson (2017) and Niemand et al. (in press) notion that micro-foundational DC, strategic sensitivity may moderate a strategic layer DC, EO. However, it did support Helfat and Peteraf, 2015) and Swoboda and Olejnik (2016) view that the micro-foundational DC, strategic sensitivity supports a strategic layer DC, EO in improving OP. Lastly, the findings indicated that organisations required both the strategic DC, EO and the micro-foundational DC, strategic sensitivity, as although strategic sensitivity does not moderate the relationship between EO and OP, strategic sensitivity supports EO in improving OP.

The third hypothesis found that CC does not moderate the relationship between EO and OP. Additiontionally, it did not support Eshima and Anderson (2017) and Ferreira et al. (2020) notion that micro-foundational DC, CC may moderate a strategic layer DC, EO. However, it did support Helfat and Peteraf (2015) and Swoboda and Olejnik (2016) view that the micro-foundational DC, CC supports a strategic layer DC, EO in improving OP. Lastly, the findings indicated that organisations required both the strategic DC, EO and the micro-foundational DC, CC, as although CC does not moderate the relationship between EO and OP, CC supports EO in improving OP.

The fourth hypothesis found that resource fluidity does not moderate the relationship between EO and OP. Additiontionally, it did not support Eshima and Anderson (2017) and Wang et al. (2020) notion that micro-foundational DC, resource fluidity may moderate a strategic layer DC, EO. However, it did support Helfat and Peteraf (2015) and Swoboda and Olejnik (2016) view that the micro-foundational DC, resource fluidity supports a strategic layer DC, EO in improving OP. Lastly, the findings indicated that organisations required both the strategic DC, EO and the micro-foundational DC, resource fluidity, as although resource fluidity does not moderate the relationship between EO and OP, resource fluidity supports EO in improving OP.

Lastly, the fifth hypothesis found that SA does not moderate the relationship between EO and OP. Additiontionally, it did not support Eshima and Anderson (2017) and Xing et al. (2020) notion that the strategic DC, SA may moderate a strategic layer DC, EO. However, it did support Helfat and Peteraf (2015) and Swoboda and Olejnik (2016) view that the strategic DC, SA, supports a strategic layer DC, EO in improving OP. Lastly, the findings indicated that organisations required both the strategic DC, EO and the strategic DC, SA, as although SA does not moderate the relationship between EO and OP, SA and EO are approximately equally required in order to improve OP.

7.3. Business and Managerial Implications

The global pandemic, among other things, has slowed the global economy and has shifted the competitive landscape, thus creating a turbulent business environment (Ahammad et al., 2020). This threat to businesses accentuates the need for organisations to seek out new opportunities that enables them to survive and grow in these turbulent environments (Kohtamäki et al., 2020). Therefore, organisations should be adaptable and flexible enough such that the organisation can maximise the value captured from these new opportunities, thus achieving survivability and growth (Doz, 2020).

EO has been positioned as a potential source to improve OP in turbulent environments (Covin & Wales, 2019). This study supported Covin and Wales (2019) notion, as the findings indicated a strong correlation between EO and OP and that EO predicts OP by 71.4%. However, this study also found that SMEs exhibit higher levels of EO which suggests that leaders of CEs should develop their EO capabilities as this may rapidly improve the organisation's micro-foundational DCs such that the benefits realised by SMEs can be replicated to CEs (Covin & Lumpkin, 2011; Eshima & Anderson, 2017; Vaillant & Lafuente, 2019).

Additionally, Xing et al. (2020)proposed that SA and its dimensions of strategic sensitivity, collective commitment, and resource fluidity are DCs (Eshima & Anderson, 2017) that moderate the EO-OP relationship, whilst other scholars proposed that SA (Kohtamäki et al., 2020), and its dimensions of strategic sensitivity(Niemand et al., in press), collective commitment (Ferreira et al., 2020),

and resource fluidity (Wang et al., 2020), are DCs that support EO in improving OP. Although this study did not support the views of Xing et al., (2020) and Eshima and Anderson (2017), it supported the notion that SA and its dimensions, support EO in improving OP (Kohtamäki et al., 2020; Niemand et al., in press; Ferreira et al., 2020; Wang et al., 2020).

However, the conclusions of this study suggest that EO and SA are approximately equally required in order for organisations to improve OP (Hayes, 2017). This finding implies that businesses should develop EO and SA as a strategic DC as when these two constructs are combined dynamically, they improve OP. Furthermore, organisations should improve the speed of information is disseminated through the different levels of an organisation when pursuing opportunities in turbulent business environments, as this improves CC, which in turn improves OP (Brueller et al., 2014).

In conclusion, organisations should develop EO and SA as strategic dynamic capabilities, as this enables organisations to be adaptable and flexible enough such that the organisation can maximise the value captured from responding to new opportunities or threats in a turbulent business environment.

7.4. Theoretical Implications

EO has been one of the most studied phenomena in the field of entrepreneurship (Covin et al., 2020). This scholarly focus is attributed to EOs association with OP and its potential to stimulate growth (Covin & Wales, 2019) across different organisational sizes (Covin & Lumpkin, 2011) and different levels within organisations (Wales et al., 2011) (Covin et al., 2020), in both turbulent environments (Becherer & Maurer, 1997) and dynamic markets(Dimitratos et al., 2004). However, scholars have posited that the EO-OP relationship is contingent, which means that the EO-OP relationship is dependent on either internal or external factors (Rauch et al., 2009). Similarly, SA, which is a dynamic meta-capability, that comprises of the combination of the strategic sensitivity, collective commitment, resource fluidity capabilities, improves OP (Fourné et al., 2014). However, the SA-OP relationship is also contingent (e Cunha et al., 2020). This notion suggests that the strength of which SA positively influences OP, is optimised when SA combines with other organisational capabilities that support an organisation's entrepreneurial activities (Eshima & Anderson, 2017).

Additionally, EO is considered a strategic DC (Covin & Wales, 2019) (Swoboda & Olejnik, 2016) that when combines with other dynamic capabilities that support entrepreneurial activity, that EO-OP relationship is moderated (Eshima & Anderson, 2017). The strategic DC, SA, comprises of three micro-foundational dynamic capabilities, strategic sensitivity (Niemand et al., in press), collective commitment(Ferreira et al., 2020), and resource fluidity (Wang et al., 2020), that support entrepreneurial activity and are suggested to moderate the EO-OP relationship(Xing et al., 2020).

Although the findings from this study indicate that there is a strong correlation between EO and OP, it does not support the notion that SA moderates the relationship between EO and OP. Furthermore, there is 28.6% of the variability that is unexplained, which consistent with findings from similar studies (Becherer & Maurer, 1997; Covin & Wales, 2019; Dimitratos et al., 2004). This finding affirms the notion that the EO-OP relationship may be moderated by internal or external variables (Covin & Wales, 2019; Engelen et al., 2014).

In conclusion, although SA does not moderate the relationship between EO and OP (Eshima & Anderson, 2017), SA supports EO in improving OP (Helfat & Peteraf, 2015). In addition, due to the consideration that both SA and EO are strategic layer DCs, it can be inferred that both SA and EO are approximately equally needed for organisations to improve OP (Hayes, 2017). Therefore, this suggests that organisations should develop both the strategic DC, EO and the strategic DC, SA, as EO and SA are approximately equally required in order to improve OP.

7.5. Limitations

This section provides a discussion on the possible factors that may have impacted the results.

7.5.1. Bias

Although statistical measures were taken to address the constraint of bias, a degree of bias may exist in the dataset, which may limit the robustness of the findings (Doyle et al., 2019).

7.5.2. Sample Size

The final sample size comprised of 138 valid respondents, although statistical measures were taken to address the constraint of the relatively low sample size, this sample size may limit the robustness of the findings as it is below the recommended threshold for structural model analysis (Hair et al., 2019).

7.5.3. Sample Method

This study used non-probability, purposive sampling techniques and judgement was exercised in selecting participants who fit the sampling criterion. Therefore, the generalisation of these findings to the larger population is prohibited(Vehovar et al., 2016).

7.5.4. Performance of the Organisation

A cross-sectional approach did not allow for the investigation of the effects on performance on the organisation. Therefore, a longitudinal study would be more suited to investigate OP (Shin et al., 2015)

7.6. Recommendations for Future Research

The objective of this research was to establish the extent to which SA, through its components of strategic sensitivity, collective commitment and resource fluidity, moderates the relationship between EO and OP. This objective was achieved through statistical analysis which involved; firstly, assessing the individual relationships between EO, OP and SA. Secondly, assessing the moderating effects of the dimensions of SA on the relationship between EO and OP. Lastly, assessing the cumulative effect of the components of SA on the relationship between EO and OP.

Although this study found that SA does not moderate the relationship between EO and OP, essential insights were obtained from this research. Firstly, although there is a strong correlation between EO and OP, there is 28.6% of the variability that is

unexplained which consistent with findings from similar studies (Becherer & Maurer, 1997; Dimitratos et al., 2004). This finding supports the calls from Covin and Wales (2019) and Engelen et al. (2014) who urge scholars to examine the moderating effects of variables that support EO as an organisational capability.

Secondly, SMEs are more entrepreneurial in nature as due to its limited resources, as compared to CEs, it has to consistently strive for organisational growth through embarking on entrepreneurial activity (Vaillant & Lafuente, 2019). Although CEs are encouraged to build EO as an organisational capability, there are still gaps in terms of the progress of the development of EO in CEs (Covin & Lumpkin, 2011). Scholars are urged to focus on these gaps as they may benefit CEs in achieving and improved OP.

Lastly, the middle levels of an organisation demonstrated considerably lower levels of SA. Although this finding suggests that middle levels of organisations are still developing in its maturity of SA, there is limited research that explains why this may be the case. Therefore, organisations would benefit from further research that investigates the effects of SA on OP at a team level.

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APPENDICES

Appendix 1: Questionnaire

A. Informed Consent

Dear Participant

I am currently a student at the University of Pretoria's Gordon Institute of Business Science and completing my research in partial fulfilment of an MBA.

I am conducting research on entrepreneurial orientation, organisational performance, and the moderating role of strategic agility. I would appreciate your participation in this online survey.

The survey should take no more than 20 minutes of your time. Your participation is voluntary, and you can withdraw at any time without penalty. Your participation is anonymous and only aggregated data will be reported.

By completing the survey, you indicate that you voluntarily participate in this research. If you have any concerns, please contact my supervisor or me. Our details are provided below.

Researcher Name: Deon Govender
Email: 18370510@mygibs.co.za

Research Supervisor: Anastacia Mamabolo
Email: mamaboloa@gibs.co.za

B. Control Variables

1. Please select your gender
    a. Male
    b. Female
    c. Prefer not to say
2. Please select your highest qualification
    a. Primary School
    b. Some Secondary School
    c. Matric or Equivalent
    d. National Diploma / Degree
    e. Postgraduate Diploma / Degree
    f. Other
3. Where do you classify your role in the organisation?
    a. Unemployed
    b. Administrative / Support
    c. Junior Management / Supervisory
    d. Middle Management / Professional
    e. Senior Management / Executive Management / Owner
    f. Other
4. What is the size of your company?
    a. Micro (< 10 employees)
    b. Small (0 - 50 employees)
    c. Medium (51 – 250 employees)
    d. Large (> 250 employees)
5. How long have you been with your company?
    a. < 1 year
    b. 1 – 5 years
    c. 6 – 10 years
    d. 11 – 14 years
    e. 15 or more years

This questionnaire is structured based on a seven-point Likert Scale, where one represents very strongly disagrees, and seven represents very strongly agrees.

Table 42: Sample of Likert Scale in Questionnaire

Very Strongly Disagree	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree	Very Strongly Agree
1	2	3	4	5	6	7

Source: Adapted from (Maurer & Pierce, 1998)

C. Entrepreneurial Orientation

Table 43: EO Questionnaire Items

Risk-Taking	
6.	The term 'risk take' is considered a positive attribute for people in our business
7.	People in our business are encouraged to take calculated risks with new ideas.
8.	Our business emphasizes both exploration and experimentation for opportunities.
Innovativeness	
9.	We actively introduce improvements and innovations in our business.
10.	Our business is creative in its methods of operation.
11.	Our business seeks out new ways to do things.
Proactiveness	
12.	We always try to take the initiative in every situation (e.g., against competitors, in projects and when working with others).
13.	We excel at identifying opportunities.
14.	We initiate actions to which other organizations respond.
Competitive Aggressiveness	
15.	Our business is intensely competitive.
16.	In general, our business takes a bold or aggressive approach when competing.
17.	We try to undo and out-manoeuvre the competition as best as we can.
Autonomy	
18.	Employees are permitted to act and think without interference.
19.	Employees perform jobs that allow them to make and instigate changes in the way they perform their work tasks.
20.	Employees are given freedom and independence to decide on their own how to go about doing their work.
21.	Employees are given the freedom to communicate without Interference.
22.	Employees are given authority and responsibility to act alone if they think it to be in the best interests of the business.
23.	Employees have access to all vital information.

Source: Adapted from (Hughes & Morgan, 2007)

D. Organisational Performance

Table 44: OP Questionnaire Items

Non-Financial Performance	
24.	Forge closer links with suppliers; monitor quality; monitor delivery times; gain leverage over suppliers; negotiate pricing.
25.	Improve throughput, boost labour productivity, improve flexibility and equipment utilization; streamline operations.
26.	Embed IT in products; increase the pace of development / R&D; monitor design cost; improve quality; support innovation.
27.	Spot market trends; anticipate customer needs; build market share; improve forecast accuracy; evaluate pricing options.
28.	Respond to customer needs; provide after-sales service and support; improve distribution; create customer loyalty.

Source: Adapted from (Tallon & Pinsonneault, 2011)

E. Strategic Agility

Table 45: SA Questionnaire Items

Strategic Sensitivity	
29.	We are very sensitive to external changes (regarding customers, competitors, technologies, etc.) and integrate these into the strategic planning of our company.
30.	We utilize different mechanisms to become aware of strategic developments early.
31.	Requirements for strategic adaptations are communicated fast and comprehensively through the organization.
Leadership Unity / Collective Commitment	
32.	Our top management team is able to make bold and fast strategic decisions.
33.	Our management board collaborates for strategic decisions.
34.	Strategic questions are collectively solved by our management without being bogged down in top-level ‘win-lose’ politics.
Resource Fluidity	
35.	We are able to reallocate and utilize capital resources fluidly.
36.	Our people and their competencies are highly mobile within our organization.
37.	Our organizational structure allows for flexible redeployment of our resources.

Source: Adapted from (Hock, Clauss, & Schulz, 2016)

Appendix 2: Ethical Clearance Approval

GIBS ETHICAL CLEARANCE APPLICATION FORM 2020

G. APPROVALS FOR/OF THIS APPLICATION

When the applicant is a student of GIBS, the applicant must please ensure that the supervisor and co-supervisor (where relevant) has signed the form before submission

STUDENT RESEARCHER/APPLICANT:

29. I affirm that all relevant information has been provided in this form and its attachments and that all statements made are correct.

Student Researcher's Name in capital letters:	DEON GOVENDER
Date:	13 Sep 2020
Supervisor Name in capital letters:	ANASTACIA MAMABOLO
Date:	13 Sep 2020
Co-supervisor Name in capital letters:	
Date:	13 Sep 2020

Note: GIBS shall do everything in its power to protect the personal information supplied herein, in accordance to its company privacy policies as well the Protection of Personal Information Act, 2013. Access to all of the above provided personal information is restricted, only employees who need the information to perform a specific job are granted access to this information.

FOR DOCTORAL AND FACULTY/RESEARCH ASSOCIATE/STAFF MEMBER RESEARCH ONLY

Approved

REC comments:

Date: 17 Sep 2020

Appendix 3: Sample of Raw Data Collected

Timestam	1. What is	2. What is	3. Where	4. What is	5. How lor	6. The terr	7. We are	8. We emp	9. We acti	10. We ar	11. We se	12. We alv	13. We ex	14. We ini	15. We ar	16. In gen	17. We try	18. Emplo	19. Emplo	20. Emplo
2020/09/2	Male	Matric / G	Administr	Small (11 :	1 - 5 years		4	2	4	3	4	2	5	2	5	3	2	5	3	3	1
2020/09/2	Male	Matric / G	Unemploy	Micro (<1(	< 1 year		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
2020/09/2	Male	Diploma /	Junior Ma	Large (>25	6 - 10 year		5	4	6	3	6	3	7	2	6	3	7	2	4	2	4
2020/09/2	Male	Matric / G	Administr	Micro (<1(	< 1 year		4	7	7	7	5	6	6	7	3	6	5	7	3	6	6
2020/09/2	Female	Matric / G	Administr	Small (11 :	11 - 14 yea		2	1	1	2	1	1	2	1	2	2	2	2	1	1	1
2020/09/2	Male	Matric / G	Unemploy	Micro (<1(	1 - 5 years		5	5	4	5	4	6	4	5	5	4	3	7	3	6	4
2020/09/2	Female	Matric / G	Administr	Small (11 :	11 - 14 yea		1	2	2	2	2	1	2	2	1	2	2	2	1	1	2
2020/09/2	Male	Matric / G	Junior Ma	Micro (<1(	1 - 5 years		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
2020/09/2	Male	Postgradu	Senior Ma	Micro (<1(	6 - 10 year		5	5	4	5	5	5	7	6	5	3	3	4	6	6	6
2020/09/2	Male	Postgradu	Senior Ma	Large (>25	< 1 year		3	6	5	6	2	3	6	1	3	2	3	3	2	2	2
2020/09/2	Female	Postgradu	Senior Ma	Medium ('	11 - 14 yea		6	6	7	6	7	5	6	6	7	5	5	7	5	6	6
2020/09/2	Male	Masters	Middle M	Large (>25	6 - 10 year		5	7	7	7	6	6	6	6	6	7	6	7	6	6	7
2020/09/2	Female	Postgradu	Middle M	Medium ('	1 - 5 years		2	2	3	4	4	4	4	2	5	3	4	2	5	5	5
2020/09/2	Male	Postgradu	Middle M	Large (>25	6 - 10 year		6	6	7	7	5	7	6	4	5	6	6	6	7	6	
2020/09/2	Male	Postgradu	Senior Ma	Large (>25	6 - 10 year		5	5	6	7	5	6	6	5	5	5	5	5	3	5	6
2020/09/2	Female	Postgradu	Middle M	Large (>25	1 - 5 years		1	1	1	1	1	1	1	1	7	1	1	1	1	1	1
2020/09/2	Female	Postgradu	Senior Ma	Large (>25	< 1 year		3	3	3	4	4	5	3	3	3	3	4	4	3	5	6
2020/09/2	Male	Postgradu	Middle M	Large (>25	1 - 5 years		3	4	5	5	5	5	4	4	5	4	4	3	4	3	4
2020/09/2	Male	Postgradu	Senior Ma	Large (>25	1 - 5 years		4	3	1	4	3	2	1	2	1	1	1	2	4	4	1
2020/09/2	Male	Postgradu	Middle M	Medium ('	1 - 5 years		3	5	3	6	5	5	2	3	2	5	5	6	6	5	6
2020/09/2	Female	Postgradu	Middle M	Large (>25	11 - 14 yea		6	6	6	4	5	5	6	4	4	7	6	7	3	3	3
2020/09/2	Male	Postgradu	Senior Ma	Small (11 :	1 - 5 years		6	4	6	4	5	4	6	6	4	4	6	3	6	6	4
2020/09/2	Male	Postgradu	Senior Ma	Large (>25	1 - 5 years		3	3	3	2	3	4	3	2	2	6	6	6	1	2	2
2020/09/2	Male	Postgradu	Senior Ma	Large (>25	1 - 5 years		6	6	5	6	5	6	6	5	5	6	5	6	5	6	6
2020/09/2	Male	Perusing M	Senior Ma	Micro (<1(	1 - 5 years		2	7	6	5	5	6	6	4	3	4	5	2	3	3	3

Appendix 4: Code Book

Table 46: Code Book: Survey Responses Re-Categorised in Prepared Data

ID	Response in Raw Data	New Label in Prepared Data
12	Masters	Postgraduate Diploma / Degree
59	Financial sales practice.	Junior Management
61	Sales	Middle Management
67	Masters	Postgraduate Diploma / Degree
68	Masters	Postgraduate Diploma / Degree
90	Masters degree	Postgraduate Diploma / Degree
96	Project manager	Middle Management
127	Project manager	Middle Management
140	Senior Project Management	Middle Management
146	Micorsoft certification	Diploma / Degree
186	Masters Degree	Postgraduate Diploma / Degree
193	LLM	Diploma / Degree
203	MBA	Postgraduate Diploma / Degree
204	MBA	Postgraduate Diploma / Degree
206	MBA	Postgraduate Diploma / Degree
207	MBA	Postgraduate Diploma / Degree

Table 47: Code Book – Survey Questions to Data Labels

Question	Label
1. What is your gender?	Gender
2. What is your highest level of education?	Education
3. Where do you classify your role in the organisation?	Org_Level
4. What is the size of your organisation?	Org_Size
5. How long have you been with your organisation?	Tenure
6. The term 'risk take' is considered a positive attribute for people in our organisation.	EO06
7. We are encouraged to take calculated risks with new ideas.	EO07
8. We emphasise both exploration and experimentation for opportunities.	EO08
9. We actively introduce improvements and innovations in our organisation.	EO09
10. We are creative in our methods of operation.	EO10
11. We seek out new ways of doing things.	EO11

Question	Label
12. We always try to take the initiative in every situation (e.g., against competitors, in projects and when working with others).	EO12
13. We excel at identifying opportunities.	EO13
14. We initiate actions to which other organisations respond.	EO14
15. We are intensely competitive.	EO15
16. In general, we take a bold or aggressive approach when competing.	EO16
17. We try to undo and out-manoeuvre the competition as best as we can.	EO17
18. Employees are permitted to act and think without interference.	EO18
19. Employees perform jobs that allow them to make and instigate changes in the way they perform their work tasks.	EO19
20. Employees are given freedom and independence to decide on their own how to go about doing their work.	EO20
21. Employees are given the freedom to communicate without interference.	EO21
22. Employees are given authority and responsibility to act alone if they think it to be in the best interests of the business.	EO22
23. Employees have access to all vital information.	EO23
24. We forge closer links with suppliers; monitor quality; monitor delivery times; gain leverage over suppliers; negotiate pricing.	OP24
25. We improve throughput, boost labour productivity, improve flexibility and equipment utilisation and streamline operations.	OP25
26. We embed IT in products; increase the pace of development or R&D; monitor design cost; improve quality; support innovation.	OP26
27. We spot market trends; anticipate customer needs; build market share; improve forecast accuracy; evaluate pricing options.	OP27
28. We respond to customer needs; provide after-sales service and support; improve distribution; create customer loyalty.	OP28
29. We are very sensitive to external changes and integrate these into the strategic planning of our organisation.	SA29
30. We utilise different mechanisms to become aware of strategic developments early.	SA30
31. Requirements for strategic adaptations are communicated fast and comprehensively through the organisation.	SA31
32. Our management team is able to make bold and fast strategic decisions.	SA32
33. Our management collaborates for strategic decisions.	SA33
34. Strategic questions are collectively solved by our management without being bogged down in top-level 'win-lose' politics.	SA34
35. We are able to reallocate and utilise capital resources fluidly.	SA35
36. Our people and their competencies are highly mobile within our organisation.	SA36
37. Our organisational structure allows for flexible redeployment of our resources.	SA37

Table 48: Code Book – Gender Coded to Numeric Data

Gender	Code
Male	1
Female	2

Table 49: Code Book – Education Coded to Numeric Data

Education	Code
Secondary School	1
Diploma / Degree	2
Postgraduate Diploma / Degree	3

Table 50: Code Book – Organisational Level Coded to Numeric Data

Org_Level	Code
Junior Management	1
Middle Management	2
Senior / Executive Management	3

Table 51: Code Book – Organisational Size Coded to Numeric Data

Org_Size	Code
SME	1
CE	2

Table 52: Code Book – Tenure Coded to Numeric Data

Tenure	Code
1 - 5 years	1
6 - 10 years	2
11 - 14 years	3
15 or more years	4

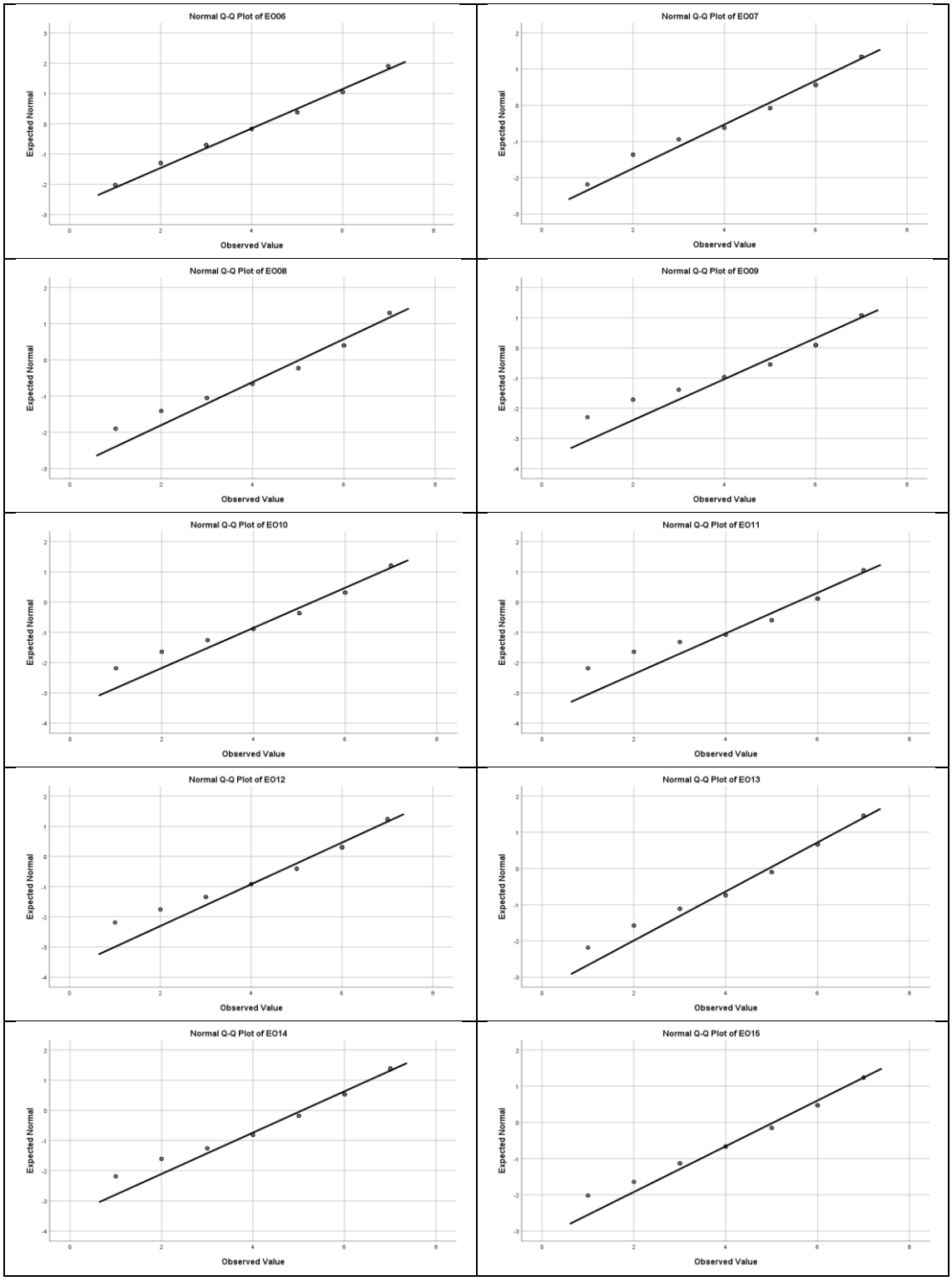
Table 53: Code Book – Likert Scale Responses Coded to Numeric Data

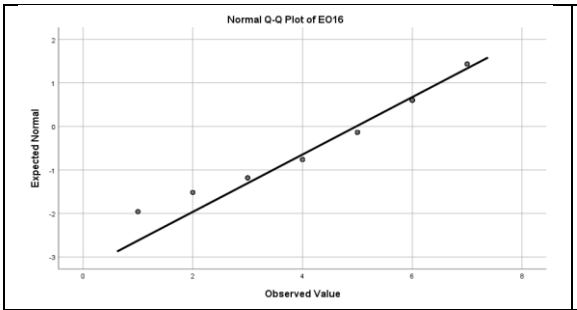
Likert Scale Responses	Code
Very Strongly Disagree	1
Strongly Disagree	2
Disagree	3
Neither Agree nor Disagree	4
Agree	5
Strongly Agree	6
Very Strongly Agree	7

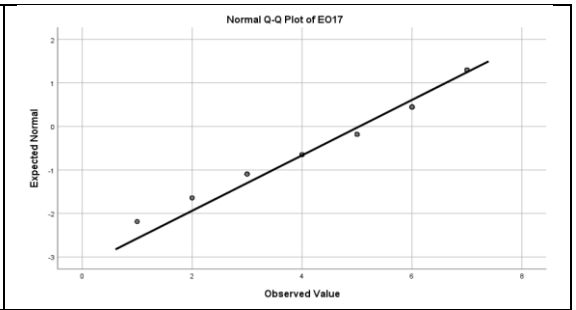
Appendix 5: Sample of Missing Data Records

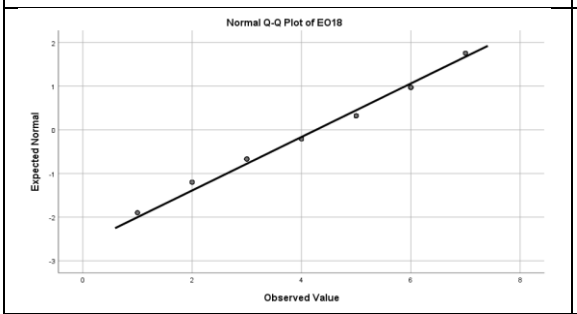
4	5	6	6	6	7	6	Missing	Missing	6	4	6	6	7	6	4	7	4	4	Missing
6	4	4	6	3	6	6	4	5	6	1	3	4	5	4	6	Missing	Missing	Missing	Missing
4	5	6	6	6	7	6	Missing	Missing	6	4	6	6	7	6	4	7	4	4	Missing
5	5	3	3	3	5	4	5	4	5	6	6	5	5	5	4	Missing	5	5	5
2	1	1	2	1	1	3	3	1	1	1	2	1	2	2	2	2	2	1	1
5	4	4	4	3	4	4	Missing	6	3	4	4	4	5	4	6	5	5	5	5
5	4	6	7	6	5	5	6	6	6	7	6	7	7	5	6	6	5	6	5
4	4	5	4	5	4	4	4	3	4	3	6	5	5	5	5	4	5	2	4
6	Missing	6	5	6	4	5	5	6	5	6	6	6	6	6	6	5	6	5	6
6	Missing	6	5	6	4	5	5	6	5	6	6	6	6	6	6	5	6	5	6
6	6	6	6	6	6	5	5	6	6	6	Missing	6	5	6	6	6	6	5	6
6	6	6	6	6	6	5	5	6	6	6	Missing	6	5	6	6	6	6	5	6
6	6	6	6	6	6	5	5	6	6	6	Missing	6	5	6	6	6	6	5	6
5	5	5	Missing	6	5	6	6	5	6	5	3	5	3	6	6	5	5	5	5

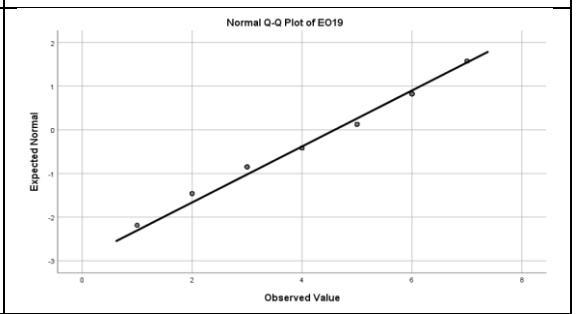
Appendix 6: Results of Normal Q-Q Plots

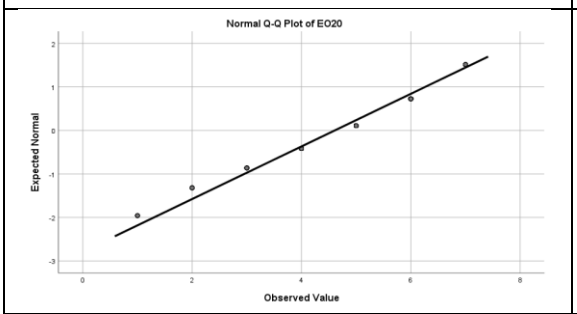


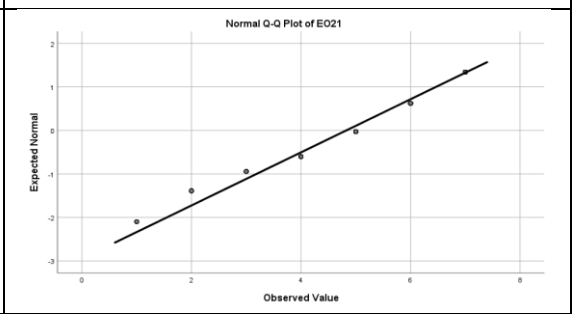

Normal Q-Q Plot of EO16
Expected Normal
Observed Value

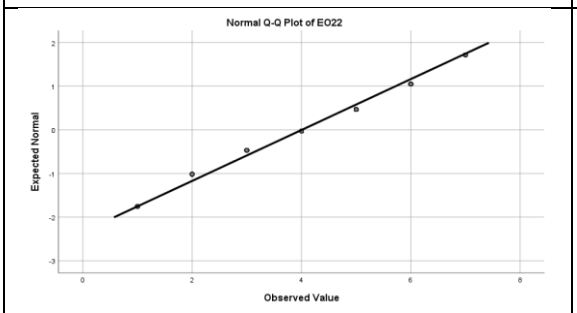

Normal Q-Q Plot of EO17
Expected Normal
Observed Value

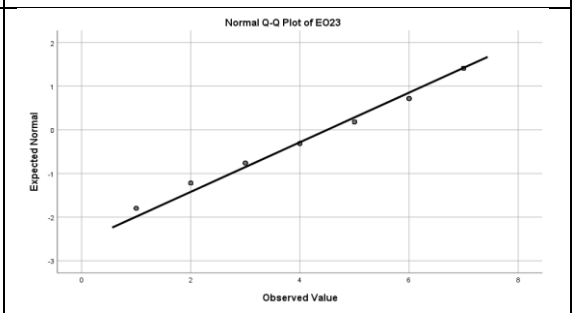

Normal Q-Q Plot of EO18
Expected Normal
Observed Value

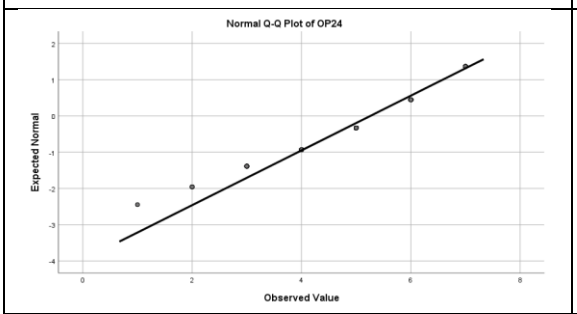

Normal Q-Q Plot of EO19
Expected Normal
Observed Value

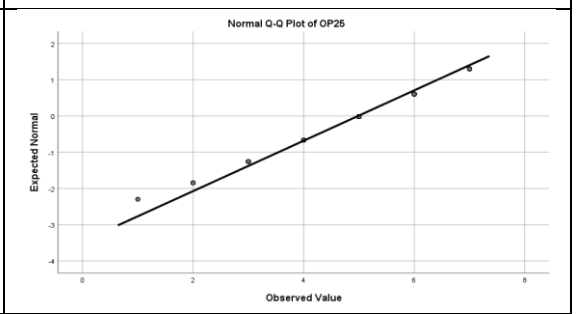

Normal Q-Q Plot of EO20
Expected Normal
Observed Value

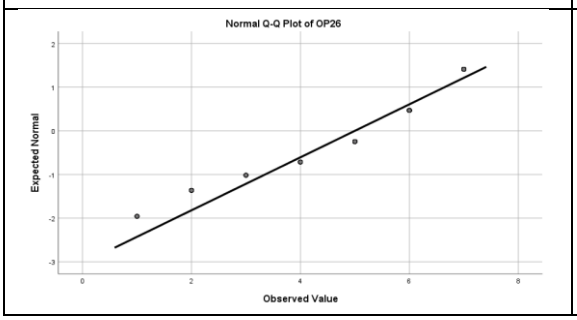

Normal Q-Q Plot of EO21
Expected Normal
Observed Value

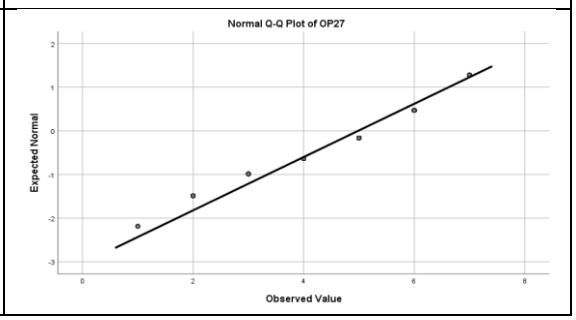

Normal Q-Q Plot of EO22
Expected Normal
Observed Value

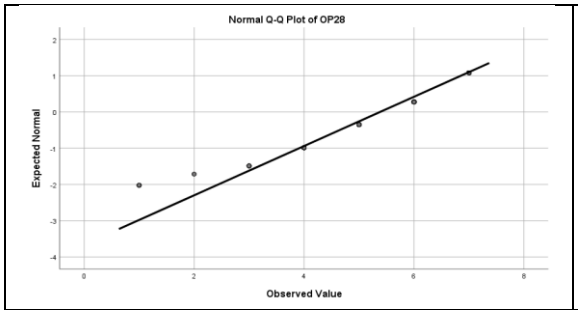

Normal Q-Q Plot of EO23
Expected Normal
Observed Value

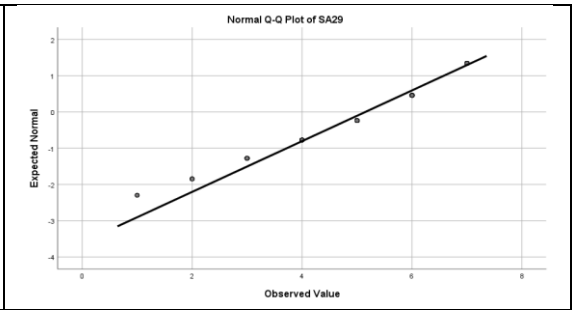

Normal Q-Q Plot of OP24
Expected Normal
Observed Value

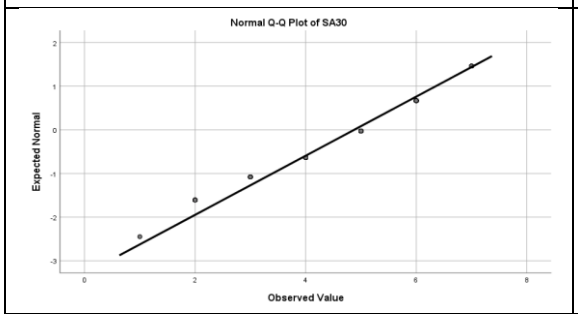

Normal Q-Q Plot of OP25
Expected Normal
Observed Value

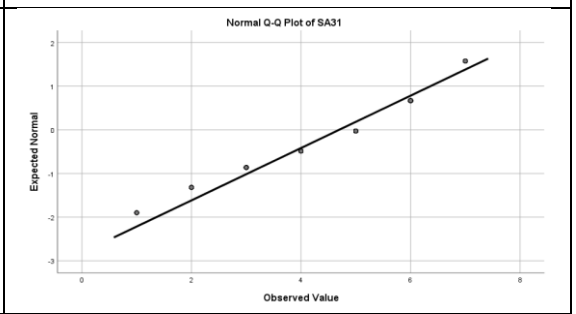

Normal Q-Q Plot of OP26
Expected Normal
Observed Value

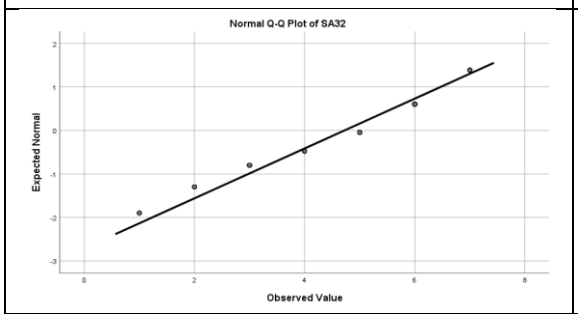

Normal Q-Q Plot of OP27
Expected Normal
Observed Value

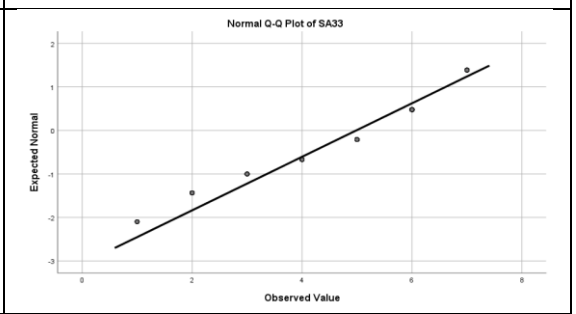

Normal Q-Q Plot of OP28
Expected Normal
Observed Value

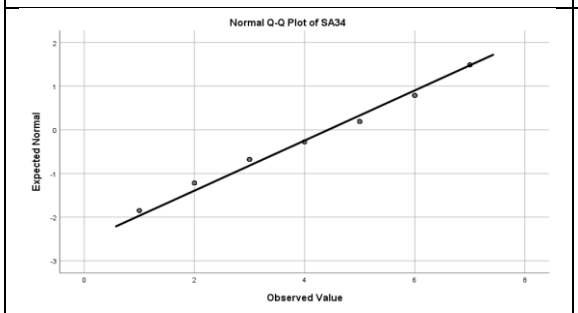

Normal Q-Q Plot of SA29
Expected Normal
Observed Value

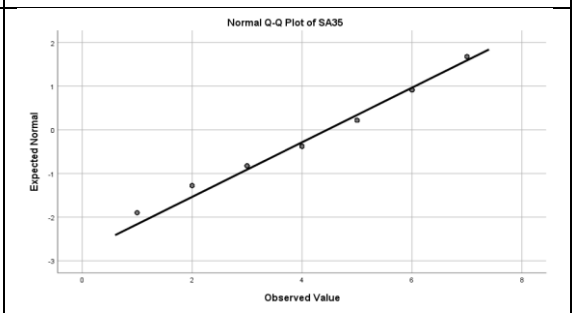

Normal Q-Q Plot of SA30
Expected Normal
Observed Value

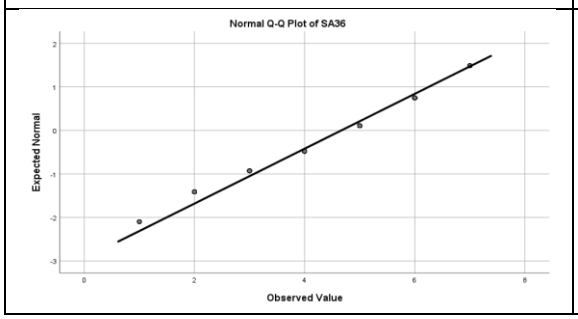

Normal Q-Q Plot of SA31
Expected Normal
Observed Value

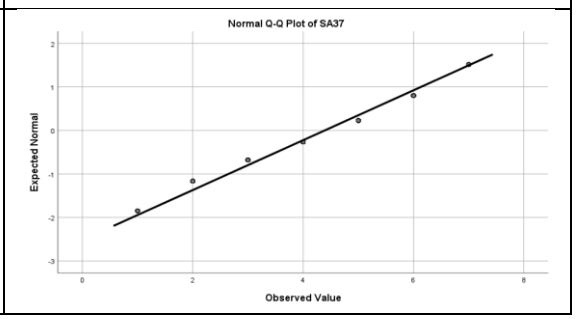

Normal Q-Q Plot of SA32
Expected Normal
Observed Value


Normal Q-Q Plot of SA33
Expected Normal
Observed Value

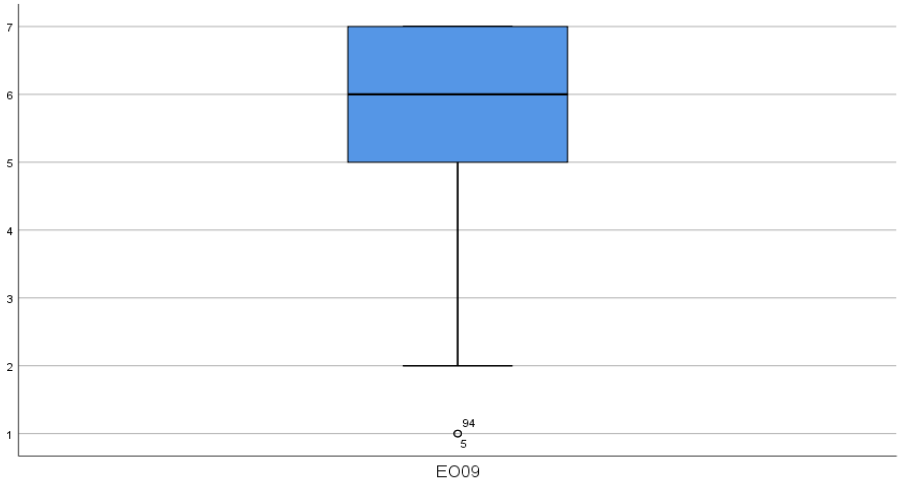

Normal Q-Q Plot of SA34
Expected Normal
Observed Value

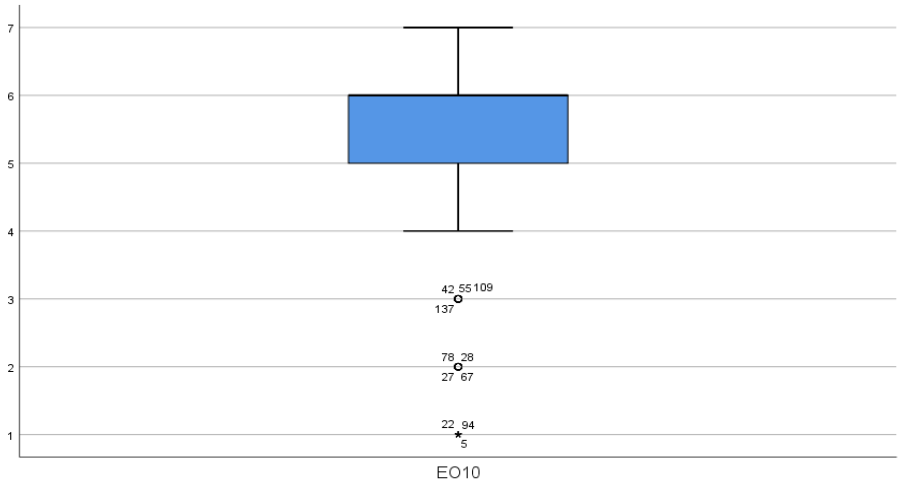

Normal Q-Q Plot of SA35
Expected Normal
Observed Value

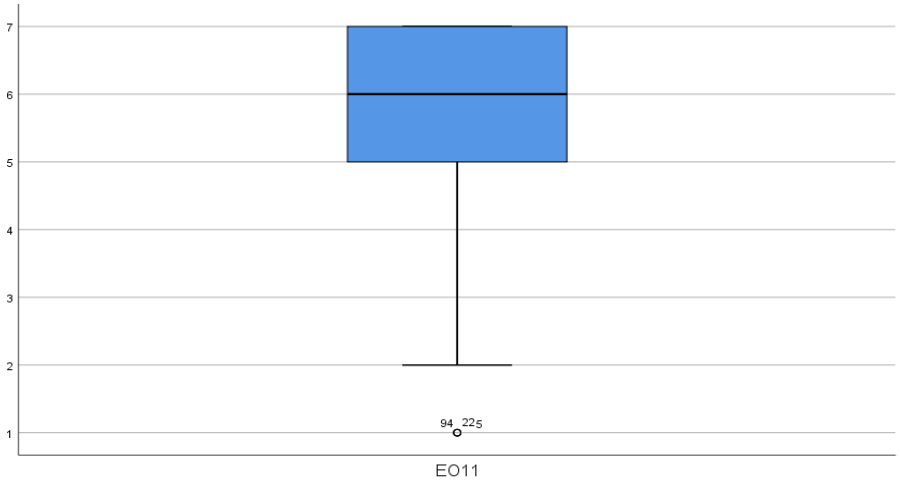

Normal Q-Q Plot of SA36
Expected Normal
Observed Value

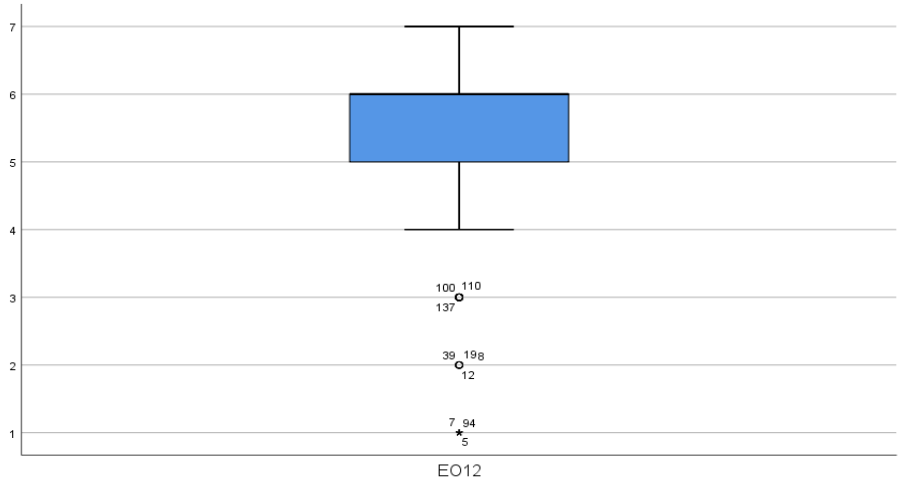

Normal Q-Q Plot of SA37
Expected Normal
Observed Value

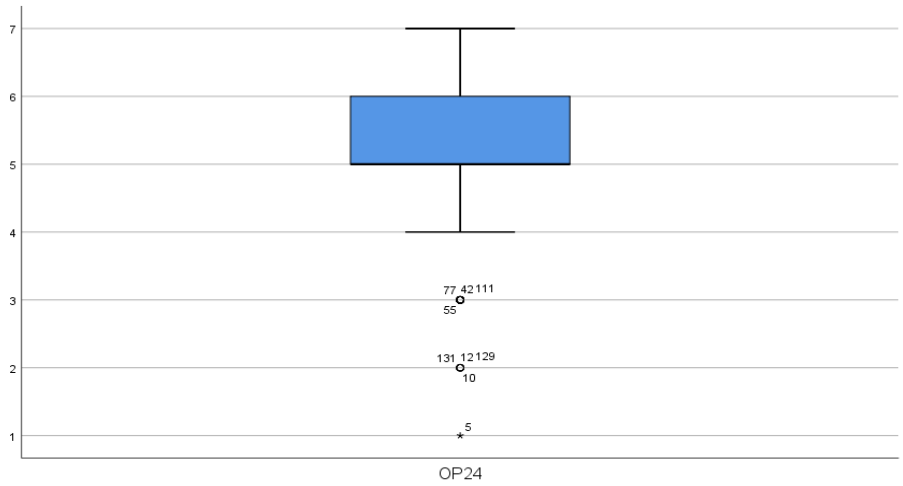
Appendix 7: Results of Box Plot Test for Outliers











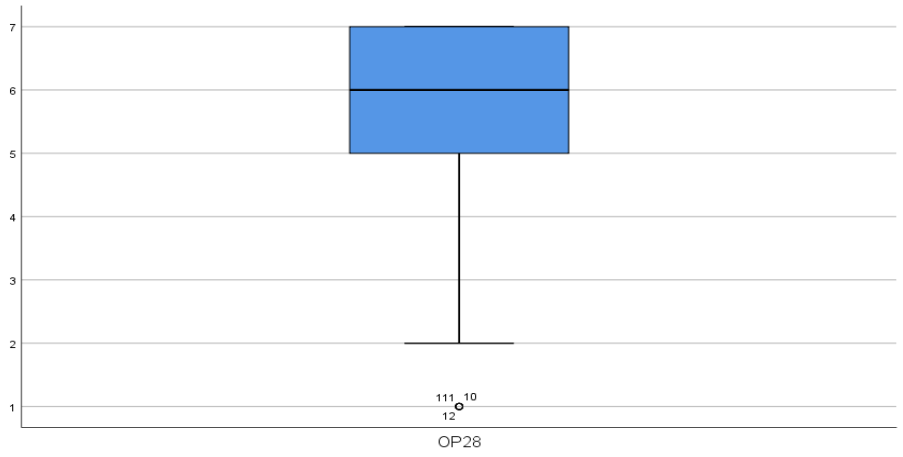


Figure 16: Results of Box Plot Test for Outliers

Source: Author (2020)

Appendix 8: 1st Iteration of Winsorising

ID	EO09		EO10		EO11		EO12		OP24		OP28	
	EO09	EO09_w	EO10	EO10_w	EO11	EO11_w	EO12	EO12_w	EO24	EO24_w	EO28	EO28_w
5	1	2	1	4	1	2	1	4	1	4		
7							1	4				
8							2	4				
10									2	4	1	2
12							2	4	2	4	1	2
19							2	4				
22			1	4	1	2						
27			2	4								
28			2	4								
39							2	4				
42			3	4					3	4		
55			3	4					3	4		
67			2	4								
77									3	4		
78			2	4								
94	1	2	1	4	1	2	1	4				
100							3	4				
109			3	4								
110							3	4				
111									3	4	1	2
129									2	4		
131									2	4		
137			3	4			3	4				

Table 54: 1st Iteration of Winsorising

Source: Author (2020)

Appendix 9: Results of Box Plot Test for the 1st iteration Winsorised Outliers

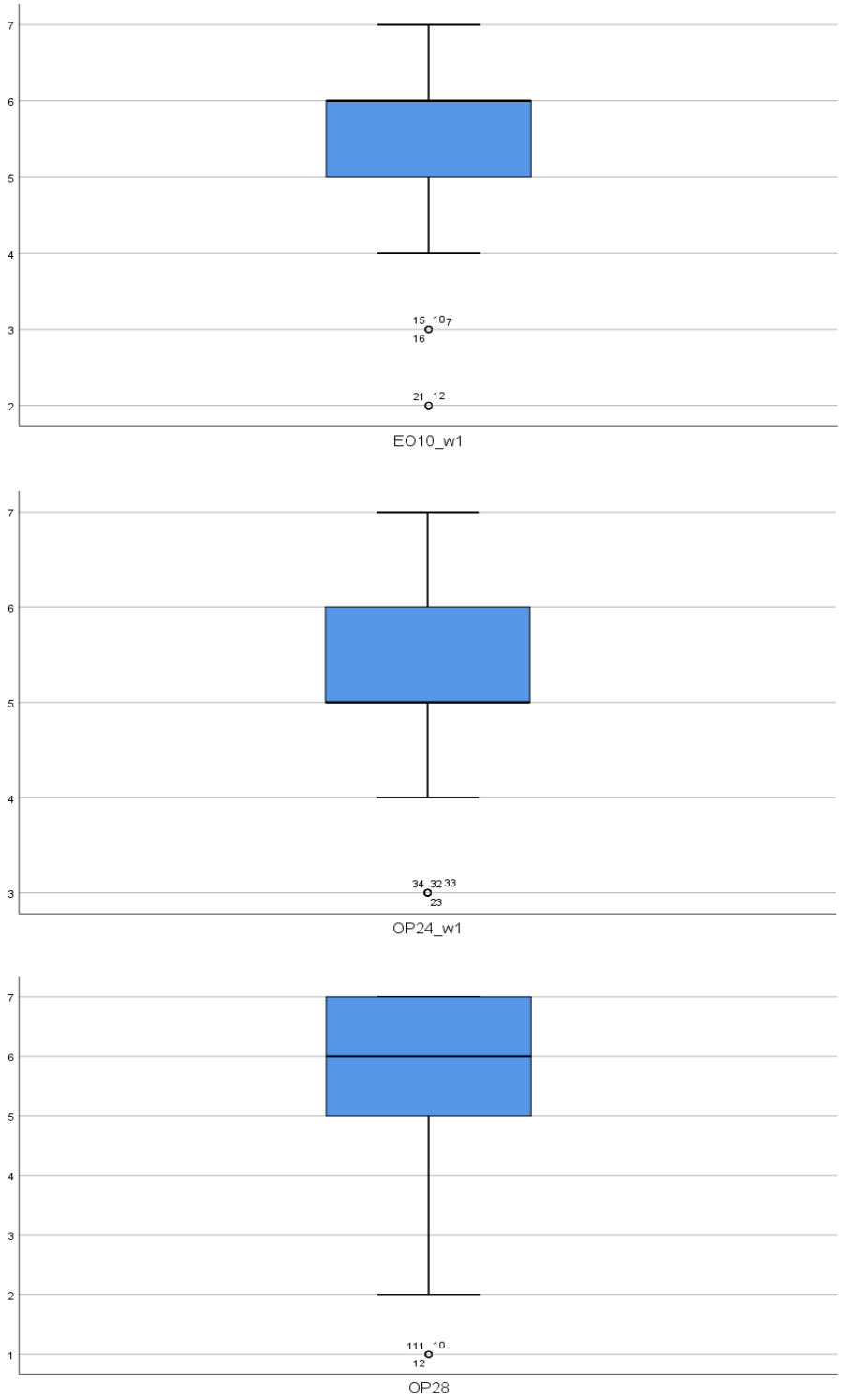


Figure 17: Results of Box Plot Test for the 1st iteration Winsorised Outliers

Source: Author (2020)

Appendix 10: 2nd Iteration of Winsorising

	EO10		EO12		OP24		OP28	
	EO10_w1	EO10_w2	EO12_w1	EO12_w2	EO24_w1	EO24_w2	EO28_w1	EO28_w2
5							1	2
7	3	4						
10	3	4						
12	2	4						
15	3	4						
16	3	4						
21	2	4						
23					3	4		
32			3	4	3	4		
33					3	4		
34					3	4		
35			3	4			1	2
114			3	4				

Table 55: 2nd Iteration of Winsorising

Source: Author (2020)

Appendix 11: Results of Box Plot Test for the 2nd iteration Winsorised Outliers

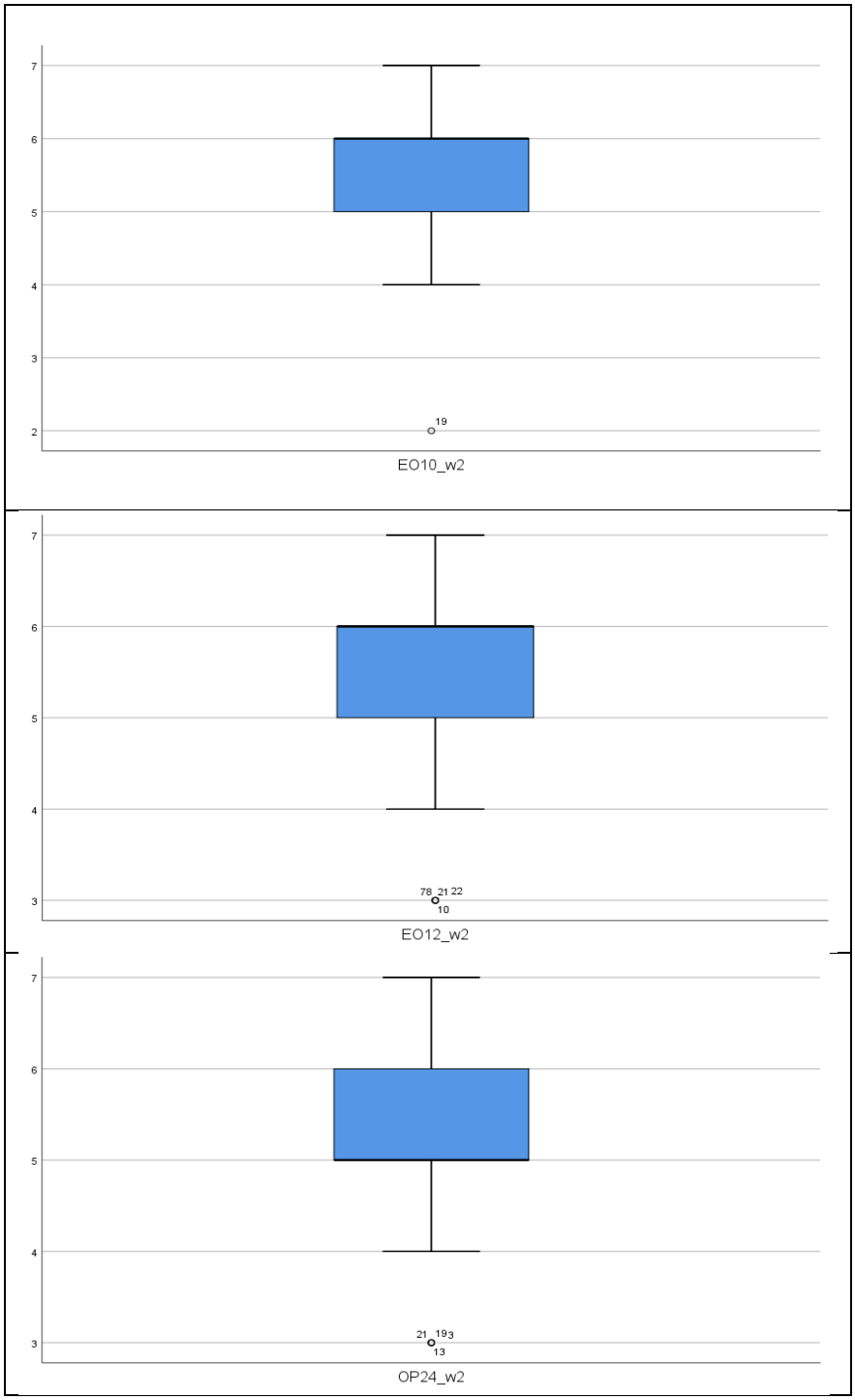


Figure 18: Results of Box Plot Test for the 2nd iteration Winsorised Outliers

Source: Author (2020)

Appendix 12: 3rd Iteration of Winsorising

	EO10		EO12		OP24	
	EO10_w2	EO10_w3	EO12_w2	EO12_w3	EO24_w2	EO24_w3
3					3	4
10			3	4		
13					3	4
19	2	3			3	4
21			3	4	3	4
22			3	4		
78			3	4		

Table 56: 3rd Iteration of Winsorising

Source: Author (2020)

Appendix 13: Results of Box Plot Test for the 3rd iteration Winsorised Outliers

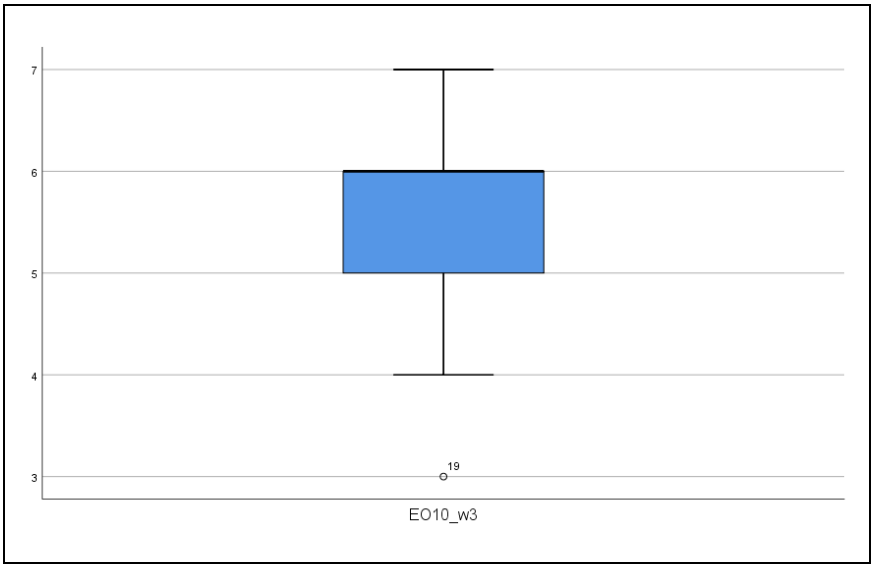


Figure 19: Results of Box Plot Test for the 3rd iteration Winsorised Outliers

Source: Author (2020)

Appendix 14: 4th Iteration of Winsorising

	EO10	
	EO10_w3	EO10_w4
19	3	4

Table 57: 4th Iteration of Winsorising

Source: Author (2020)

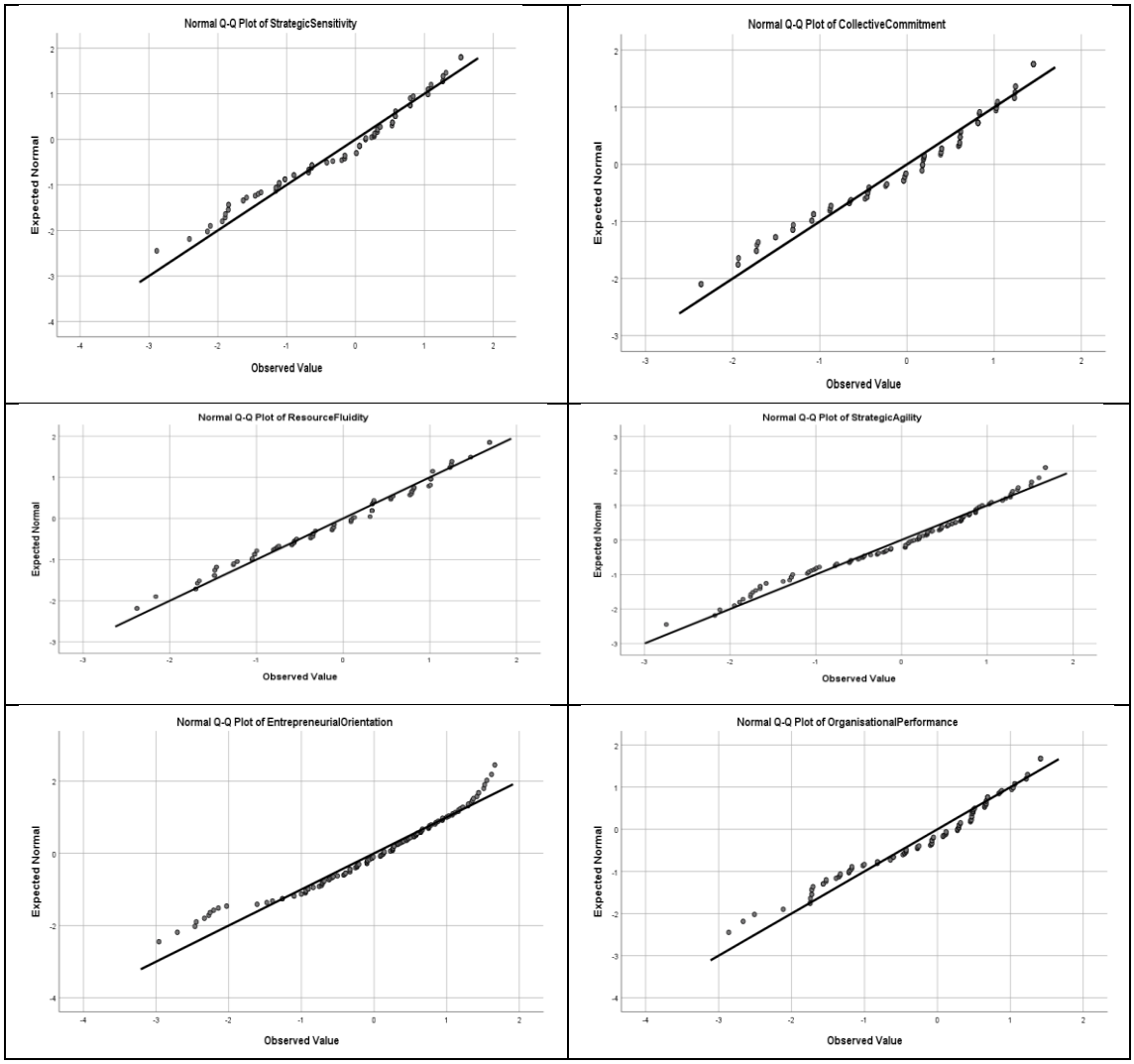
Appendix 15: Dimension Reduction Correlation Matrix

Correlation Matrix: Risk					
Correlation	EO06	EO07	EO08		
EO06	1.000	0.761	0.641		
EO07	0.761	1.000	0.819		
EO08	0.641	0.819	1.000		
Correlation Matrix: Innovativeness					
Correlation	EO09_w1	EO10_w4	EO11_w1		
EO09_w1	1.000	0.707	0.840		
EO10_w4	0.707	1.000	0.703		
EO11_w1	0.840	0.703	1.000		
Correlation Matrix: Proactiveness					
Correlation	EO12_w3	EO13	EO14		
EO12_w3	1.000	0.703	0.712		
EO13	0.703	1.000	0.754		
EO14	0.712	0.754	1.000		
Correlation Matrix: Competitive Aggressiveness					
Correlation	EO15	EO16	EO17		
EO15	1.000	0.873	0.812		
EO16	0.873	1.000	0.822		
EO17	0.812	0.822	1.000		
Correlation Matrix: Autonomy					
Correlation	EO18	EO19	EO20	EO21	EO22
EO18	1.000	0.820	0.696	0.700	0.758
EO19	0.820	1.000	0.693	0.629	0.691
EO20	0.696	0.693	1.000	0.546	0.621
EO21	0.700	0.629	0.546	1.000	0.658
EO22	0.758	0.691	0.621	0.658	1.000
Correlation Matrix: Entrepreneurial Orientation					
Correlation	Risk Taking	Innovativeness	Proactiveness	Competitive Aggressiveness	Autonomy
Risk Taking	1.000	0.559	0.514	0.577	0.679
Innovativeness	0.559	1.000	0.778	0.620	0.601
Proactiveness	0.514	0.778	1.000	0.732	0.513
Competitive Aggressiveness	0.577	0.620	0.732	1.000	0.516
Autonomy	0.679	0.601	0.513	0.516	1.000
Correlation Matrix: Strategic Sensitivity					
Correlation	SA29	SA30	SA31		
SA29	1.000	0.766	0.647		
SA30	0.766	1.000	0.696		
SA31	0.647	0.696	1.000		
Correlation Matrix: Collective Commitment					
Correlation	SA32	SA33	SA34		
SA32	1.000	0.799	0.817		
SA33	0.799	1.000	0.727		
SA34	0.817	0.727	1.000		
Correlation Matrix: Resource Fluidity					
Correlation	SA35	SA36	SA37		

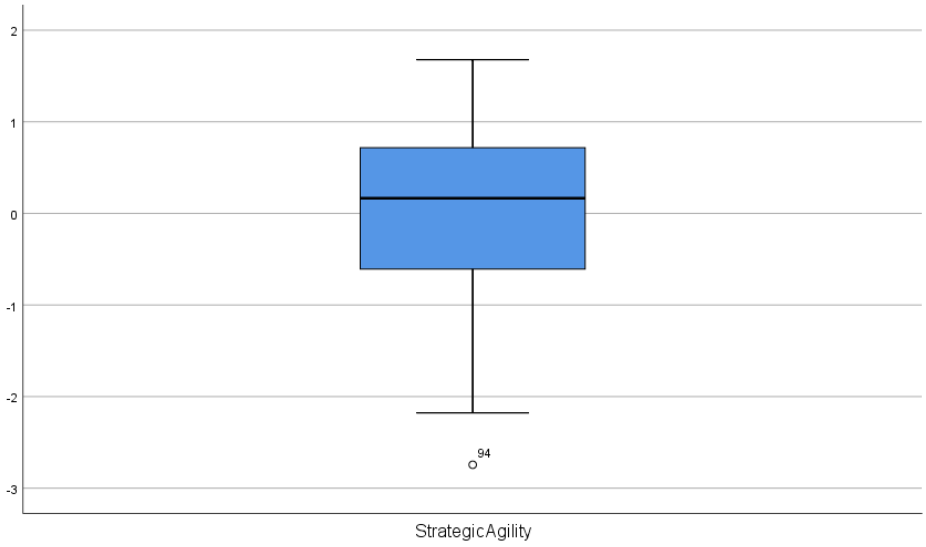
SA35	1.000	0.627	0.660	
SA36	0.627	1.000	0.834	
SA37	0.660	0.834	1.000	
Correlation Matrix: Strategic Agility				
Correlation	Strategic Sensitivity	Collective Commitment	Resource Fluidity	
Strategic Sensitivity	1.000	0.823	0.749	
Collective Commitment	0.823	1.000	0.788	
Resource Fluidity	0.749	0.788	1.000	
Correlation Matrix: Organisational Performance				
Correlation	OP25	OP26	OP27	OP28_w2
OP25	1.000	0.757	0.739	0.635
OP26	0.757	1.000	0.770	0.685
OP27	0.739	0.770	1.000	0.656
OP28_w2	0.635	0.685	0.656	1.000

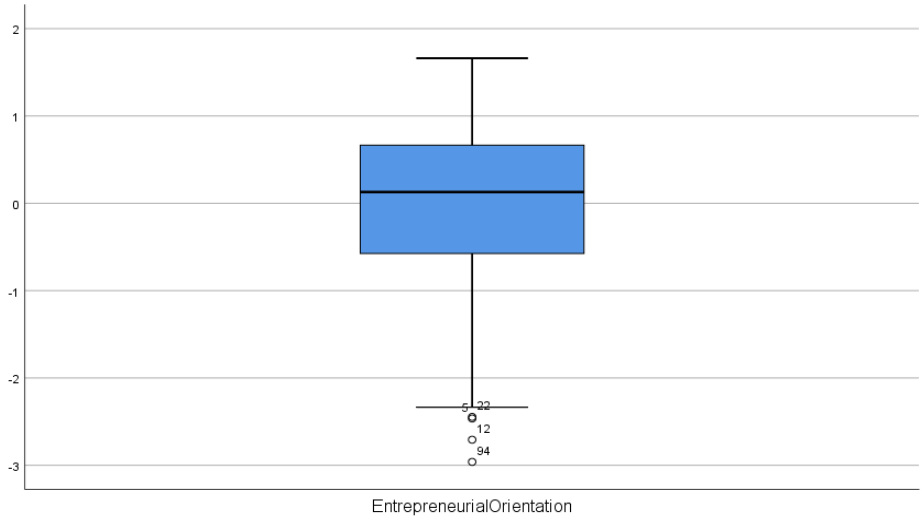
Table 58: Dimension Reduction Correlation Matrix

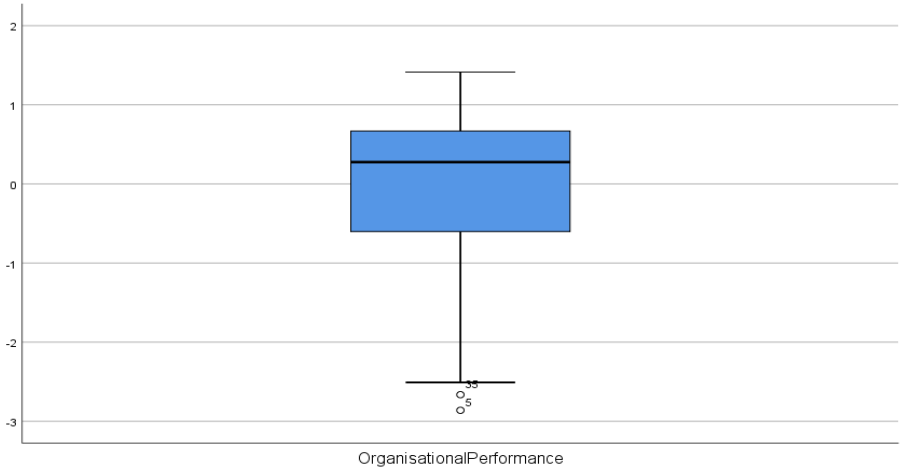
Appendix 16: Results of Normal Q-Q Plots



Appendix 17: Results of Box Plot Test for Outliers







Appendix 18: Winsorising Process for Regression

ID			SA		EO		OP	
SPSSID	ID	WinID	SA	SA_w	EO	EO_w	OP	OP_w
94	162	23	-2.744	-2.179				
5	16	35			-2.465	-2.335		
12	26	35			-2.707	-2.335		
22	39	35			-2.446	-2.335		
94	162	35			-2.961	-2.335		
5	16	26					-2.861	-2.509
35	66	26					-2.664	-2.509

Table 59: Winsorising Process for Regression

Source: Author (2020)

Appendix 19: SPSS Process Output: SS Moderating EO-OP

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 3.5
*****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2018). www.guilford.com/p/hayes3

**************************************************************************
****
Model  : 1
    Y  : OP_w
    X  : EO_w
    W  : SS

Covariates:
 OrgSize  OrgLevel

Sample
Size:  138

**************************************************************************
****
OUTCOME VARIABLE:
 OP_w

Model Summary
          R       R-sq        MSE          F        df1        df2
p
       .872       .760       .244     83.460      5.000    132.000
.000

Model
              coeff         se          t          p       LLCI
ULCI
constant       .187       .251       .745       .458      -.309
.682
EO_w           .625       .075      8.328       .000       .476
.773
SS             .320       .071      4.473       .000       .178
.461
Int_1          .044       .040      1.121       .264      -.034
.123
OrgSize       -.011       .093      -.113       .910      -.195
.174
OrgLevel      -.088       .071     -1.236       .219      -.229
.053

Product terms key:
 Int_1    :        EO_w     x        SS

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
X*W       .002      1.257      1.000    132.000       .264
----------
    Focal predict: EO_w     (X)
          Mod var: SS       (W)
```

```
Data for visualizing the conditional effect of the focal predictor:
Paste text below into a SPSS syntax window and execute to produce
plot.

DATA LIST FREE/
   EO_w       SS         OP_w       .
BEGIN DATA.
      -.977     -1.000      -.917
       .000     -1.000      -.350
       .977     -1.000       .217
      -.977       .000      -.640
       .000       .000      -.030
       .977       .000       .580
      -.977      1.000      -.364
       .000      1.000       .289
       .977      1.000       .943
END DATA.
GRAPH/SCATTERPLOT=
 EO_w     WITH     OP_w     BY       SS       .

************************ ANALYSIS NOTES AND ERRORS
************************

Level of confidence for all confidence intervals in output:
  95.0000

NOTE: The following variables were mean centered prior to analysis:
          SS       EO_w

------ END MATRIX -----
```

Appendix 20: SPSS Process Output: CC Moderating EO-OP

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 3.5
*****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2018). www.guilford.com/p/hayes3

**************************************************************************
****
Model  : 1
    Y  : OP_w
    X  : EO_w
    W  : CC

Covariates:
 OrgSize  OrgLevel

Sample
Size:  138

**************************************************************************
****
OUTCOME VARIABLE:
 OP_w

Model Summary
          R       R-sq        MSE          F        df1        df2
p
       .872       .761       .243     84.171      5.000    132.000
.000

Model
              coeff         se          t          p       LLCI
ULCI
constant       .315       .248      1.267       .207      -.177
.806
EO_w           .637       .067      9.512       .000       .505
.770
CC             .287       .064      4.479       .000       .160
.413
Int_1         -.021       .039      -.531       .596      -.098
.056
OrgSize        .040       .091       .440       .660      -.140
.220
OrgLevel      -.159       .071     -2.230       .027      -.300      -
.018

Product terms key:
 Int_1    :        EO_w     x        CC

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
X*W       .001       .282      1.000    132.000       .596
----------
    Focal predict: EO_w     (X)
          Mod var: CC       (W)
```

```
Data for visualizing the conditional effect of the focal predictor:
Paste text below into a SPSS syntax window and execute to produce
plot.

DATA LIST FREE/
   EO_w       CC         OP_w       .
BEGIN DATA.
      -.977     -1.000      -.910
       .000     -1.000      -.268
       .977     -1.000       .374
      -.977       .000      -.603
       .000       .000       .019
       .977       .000       .641
      -.977      1.000      -.297
       .000      1.000       .305
       .977      1.000       .907
END DATA.
GRAPH/SCATTERPLOT=
 EO_w     WITH     OP_w     BY       CC       .

************************ ANALYSIS NOTES AND ERRORS
************************

Level of confidence for all confidence intervals in output:
  95.0000

NOTE: The following variables were mean centered prior to analysis:
          CC       EO_w

------ END MATRIX -----
```

Appendix 21: SPSS Process Output: RF Moderating EO-OP

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 3.5
*****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2018). www.guilford.com/p/hayes3

**************************************************************************
****
Model  : 1
    Y  : OP_w
    X  : EO_w
    W  : RF

Covariates:
 OrgSize  OrgLevel

Sample
Size:  138

**************************************************************************
****
OUTCOME VARIABLE:
 OP_w

Model Summary
          R       R-sq        MSE          F        df1        df2
p
       .885       .782       .221     94.956      5.000    132.000
.000

Model
              coeff         se          t          p       LLCI
ULCI
constant       .067       .241       .276       .783      -.410
.543
EO_w           .580       .064      9.115       .000       .454
.706
RF             .352       .061      5.815       .000       .232
.472
Int_1         -.060       .038     -1.582       .116      -.134
.015
OrgSize        .127       .088      1.432       .155      -.048
.301
OrgLevel      -.099       .068     -1.469       .144      -.233
.034

Product terms key:
 Int_1    :        EO_w     x        RF

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
X*W       .004      2.504      1.000    132.000       .116
----------
    Focal predict: EO_w     (X)
          Mod var: RF       (W)
```

```
Data for visualizing the conditional effect of the focal predictor:
Paste text below into a SPSS syntax window and execute to produce
plot.

DATA LIST FREE/
   EO_w       RF         OP_w       .
BEGIN DATA.
      -.977     -1.000      -.930
       .000     -1.000      -.306
       .977     -1.000       .319
      -.977       .000      -.520
       .000       .000       .046
       .977       .000       .613
      -.977      1.000      -.110
       .000      1.000       .398
       .977      1.000       .906
END DATA.
GRAPH/SCATTERPLOT=
 EO_w     WITH     OP_w     BY       RF       .

************************ ANALYSIS NOTES AND ERRORS
************************

Level of confidence for all confidence intervals in output:
  95.0000

NOTE: The following variables were mean centered prior to analysis:
          RF       EO_w

------ END MATRIX -----
```

Appendix 22: SPSS Process Output: SA Moderating EO-OP

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 3.5
*****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2018). www.guilford.com/p/hayes3

**************************************************************************
****
Model  : 1
    Y  : OP_w
    X  : EO_w
    W  : SA_w

Covariates:
 OrgSize  OrgLevel

Sample
Size:  138

**************************************************************************
****
OUTCOME VARIABLE:
 OP_w

Model Summary
          R       R-sq        MSE          F        df1        df2
p
       .888       .789       .215     98.425      5.000    132.000
.000

Model
              coeff         se          t          p       LLCI
ULCI
constant       .217       .235       .927       .356      -.247
.681
EO_w           .486       .073      6.637       .000       .341
.631
SA_w           .438       .069      6.335       .000       .301
.575
Int_1         -.033       .037      -.889       .376      -.107
.041
OrgSize        .045       .086       .527       .599      -.125
.215
OrgLevel      -.115       .067     -1.729       .086      -.247
.017

Product terms key:
 Int_1    :        EO_w     x        SA_w

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
X*W       .001       .790      1.000    132.000       .376
----------
    Focal predict: EO_w     (X)
          Mod var: SA_w     (W)
```

```
Data for visualizing the conditional effect of the focal predictor:
Paste text below into a SPSS syntax window and execute to produce
plot.

DATA LIST FREE/
   EO_w       SA_w       OP_w       .
BEGIN DATA.
      -.977      -.990      -.911
       .000      -.990      -.404
       .977      -.990       .103
      -.977       .000      -.445
       .000       .000       .030
       .977       .000       .504
      -.977       .990       .021
       .000       .990       .463
       .977       .990       .906
END DATA.
GRAPH/SCATTERPLOT=
 EO_w     WITH     OP_w     BY       SA_w     .

************************ ANALYSIS NOTES AND ERRORS
************************

Level of confidence for all confidence intervals in output:
  95.0000

NOTE: The following variables were mean centered prior to analysis:
          SA_w     EO_w

------ END MATRIX -----
```