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The moderating role of the top management decision making process on the relationship between entrepreneurial orientation and organizational performance

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ABSTRACT

The relationship between entrepreneurial orientation and organizational performance has been researched and found to be contingent. One of the contingencies that required further investigation was how the top management team's decision-making process impacted that relationship. Therefore, purpose of the study was to assess the moderation effect of top management decision making process on the relationship between entrepreneurial orientation and organizational performance. A quantitative study was deployed with a total of 139 valid respondents. Multiple regression analysis was done to test the relationship between entrepreneurial orientation (EO) and organizational performance (OP). While a moderated multiple regression analysis was done to test the moderating effect of top management decision making conflict on EO and OP. The findings of the study validated prior research on the positive correlation between entrepreneurial orientation and organizational performance highlighting importance of entrepreneurial orientation in companies. The second finding of the study conflicted with several studies as it found the moderation effect of the top management team conflict statistically insignificant. This finding raised questions on what other contextual factors may have been at play that impacted the outcome. It further highlighted the need for more studies into the top management team dynamics or introduction diverse data analysis methodology to provide richer data on these relationships.

KEY WORDS

Entrepreneurial orientation; Organizational Performance; Top Management Team Decision Making Process; Conflict

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.

Harriet Mlalazi

01 November 2022

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CHAPTER 1 – INTRODUCTION TO RESEARCH PROBLEM

1.1 Introduction

This chapter introduces the research topic on the moderating role of the top management team decision making process on the relationship between entrepreneurial orientation and organisational performance. The introduction details the research problem, purpose, and finally the value to be derived both practically and theoretically from the research.

1.2 Background to the Research

The drive to enhance organizational performance continues to gain prominence with the highly complex business environment (Isabelle, Horak, McKinnon, Palumbo, 2020). Therefore, scholars and business practitioners have a historic interest in levers that enhance performance. The relationship between entrepreneurial orientation and Organizational Performance has been highly researched and established as positive meaning that increased entrepreneurial orientation results in improved organisational performance. (Covin & Wales, 2019; Donbesuur, Boso & Hultman 2020; Lumpkin & Dess, 1996, 2001; McGee & Peterson, 2019). However, a study by (Lumpkin & Dess, 1996) highlighted that this relationship had several contingencies that could be classified as internal, being within the firm, and external being outside the firm. The contingencies they identified included moderating, mediating, independent, and interaction effects. Recent work by (Lee et al., 2019) also validated the contingent nature of the relationship between entrepreneurial orientation and organisational performance. Our study seeks to investigate the moderating variable as a contingency to the relationship. A moderating factor is a third variable that affects the outcome/size of a variable (Hayes & Rockwood, 2020). Therefore, the moderating factors of the relationship between entrepreneurial orientation and organisational performance need to be explored.

The Upper Echelons Theory as well as the resource-based view provide valuable frameworks that articulate the role of the top management team in influencing firm performance. (Eisenhardt, 2013) found that top management team affected organisational performance through two main avenues: “organizational structure” and “decision-making processes”. However, the role of the top management team has not been well researched in relation to the relationship between entrepreneurial orientation and organisational

performance relationship. This gap was articulated by (Covin & Wales, 2019) who appealed for research into how managerial cognition affected entrepreneurial orientation. Therefore, the effect of the top management team, in particular, the decision-making process on the relationship between entrepreneurial orientation and organisational performance needs to be further researched.

1.3 Theoretical Relevance of the Study

The relationship between entrepreneurial orientation and organisational performance is based on the Resource-Based View although the relationship is contingent. Whereas the upper echelons theory explains the role the top management plays in influencing firm outcomes. In particular, The upper echelons theory refers to the "black box" (Hambrick & Mason, 1984) which refers to the complex dynamic of the top management team, and in line with that several scholars have researched and found other aspects of the top management team that affected performance for example Diversity of the top management team (Díaz-Fernández, Gonzalez-Rodriguez , Simonetti, 2020), the relationship between the top management team and chief executive officer (She, Li, London, Yang, Yang, 2020; Yi, Chen, He , 2022). The top management team influence on performance is known however there exists an opportunity to explore the top management team's influence on the relationship between entrepreneurial orientation and organisational performance. The study will help in advancing the insights on impact of upper echelons theory on the entrepreneurial orientation research. The three aspects of the top management team decision-making process that were found to affect OP is speed, conflict, and harmony (Eisenhardt, 2013) and this study will investigate the moderating effect of speed and conflict on the relationship between entrepreneurial orientation and organisational performance.

1. 4 Business Rationale of the study

(Lee et al., 2019; Lumpkin & Dess, 2001; Wales et al., 2021) articulated the importance of understanding the relationships between EO and OP due to the competitive landscape firms faced. The environment now displays increased complexity, in addition to Porter's traditional five forces, (Isabelle et al., 2020) highlighted additional forces that entities have to deal with being competition's rate of innovation, globalization, digitization, and de-regulation. The challenges in the macro environment emanating from the covid pandemic

and ongoing sovereign wars have added a further layer of unpredictability. The speed of innovating and making timely strategic decisions remains key. (Adomako et al., 2021) reiterated importance of decision-making speed in highly competitive environments. However, entities have limited control over the environmental forces but can leverage resources at their disposal to create desirable firm outcomes. (Cummings, Worley, Donovan, 2020)

The desired firm outcomes include financial, market, environmental and social performance deliverables (Hubbard, 2009) Noting that the top management team is central to the success of entrepreneurial firms (Eisenhardt, 2013) and can through strategic choices alter firm outcomes (Hambrick & Mason, 1984). The top management team need to be cognisant of aspects of their processes that can have significant implications for the firm. As a result, members of the top management team need to understand how their actions impact broader firm outcomes to be able to implement processes that will have a positive performance outcome.

1.5 Purpose Statement

The main objective of the study is to understand how two aspects of the top management team decision-making process, being speed and conflict moderates the relationship between entrepreneurial orientation and organisational performance.

1.6 Contribution of the Study

The study will contribute by extending entrepreneurial orientation research into the upper echelons' theory domain aiding in demystifying managerial cognition in entrepreneurial research (Lee et al., 2019; Neely et al., 2020) . The insights on the moderation effect of top management team's decision-making conflict and speed on entrepreneurial orientation and organisational performance will add insights into the strategic decision-making process which impacts firm outcomes(Gerhart & Feng, 2021; Wemerfelt, 1984). Some scholars have used complexity theory to define the non-linear and uncertain dynamics within the top management team (Díaz-Fernández et al., 2020). Therefore, given the complexity of the top management team and the importance of the role of these players in the organisation (Neely et al., 2020), it is imperative to understand the impact of the decision-making process to address recommendation by (Covin & Wales, 2019)

that future EO research should explore the dynamic within management that either play a complimenting or countering role to organisational performance. Therefore, the research being conducted is meant to address that gap.

1.7 Scope of Research

The scope of research was defined across three areas: country, size of company and role/ ranking of the respondent. The population of the study was small, medium, and large companies operating in Botswana. The reason for scoping the country was to eliminate bias that may be associated with culture. Example according to Hofstede's theory/framework (Hofstede, 2011) different countries have different cultural dynamics for example power distance. This was to ensure there are no cultural dimensions that can compromise quality of data. The target respondents were respondents whose roles are in medium, senior and executive management to ensure respondents have strategic insights (Covin & Wales, 2019)

1.8 Outline of Document

The main body of the document is segregated into 7 chapters with appendices added at the end of the document.

Chapter two provides a literature review on the theoretical foundation of the study, unpacks each dimension and the underlying relationships

Chapter three provides the objective of the research; hypothesis being tested, and the model adopted for the study.

Chapter four provides the methodology, design and strategy adopted in collecting, analysing, and interpreting the data

Chapter five provided results of the data analysis across the following key dimensions; descriptive statistics, reliability and validity testing, and hypothesis testing

Chapter six provides a detailed discussion of the results presented in chapter 5 from a theoretical perspective

Chapter seven is the conclusion and provides theoretical as well as business implications of the study.

1.9 Conclusion

The objective of this chapter was to defend the need for the study by highlighting contextual variables that necessitate the study as well as value to be derived from both an academic and business perspective.

CHAPTER 2 – LITERATURE REVIEW

2.1. Introduction

This chapter provides a literature review of work that has already been done on the main constructs of the study being entrepreneurial orientation, organizational performance, and the Top Management Team decision-making process. The underlying theoretical models for the study are also explained. A literature review is invaluable in understanding the research problem and facilitates the necessary exploration of research questions, prior work, identification of existing gaps and methodologies (Ellis & Levy, 2008).

2.2. Theory

The study has its theoretical grounding on the resource-based view (RBV) and the Upper echelons theory (UET). The Resource-Based View (RBV) is anchored on the view a firm does not optimise its performance through external variables but rather through a deliberate process of leveraging the resources it has at its disposal. The firm should particularly focus on leveraging its resource base than optimising the product side for growth. (Barney, Wright, Ketchen, 2001; Wemerfelt, 1984). The backbone of the resource-based view is that a firm can attain strategic competitive advantage purely through strategic deployment of its resources.

The resources of the firm refer to all intrinsic assets and since the introduction of the theory by (Wemerfelt, 1984), scholars have explored the theory widely and applications expanded to domains like human resource (Gerhart & Feng, 2021), technology and big data (Dubey et al., 2019) highlighting the breath of resources firms have at their disposal.

Entrepreneurial orientation is described as the "processes, practices and decision-making" firms undergo in entering new markets (Lumpkin & Dess, 1996, 2001). It is therefore a firm construct (Covin & Wales, 2019) and one of the resources an organisation can harness to enhance performance. Several scholars (Afshar Jahanshahi, Nawaser, Brem 2018; Donbesuur et al., 2020b; McGee & Peterson, 2019) have anchored their entrepreneurial orientation research on the same theory confirming the validity of entrepreneurial orientation as a firm resource. One of the scholars (Wales et al., 2021) made reference to resource-based view as being one of the pertinent "scaffoldings" of

entrepreneurial orientation research reflecting how deeply entrenched the theory is in this domain. This study is therefore anchored on the resource-based view as a basis for the relationship between entrepreneurial orientation and organisational performance.

The second theory that underpins this study is the upper echelons theory which is based on the premise that senior executives of the firm have a significant impact on the firm through their values, experience, and personalities. The top management team is a constitution of key players in the firm that affect outcomes (Hambrick & Mason, 1984; Neely, Lovelace, Cowen, Hiller, 2020). The operations of the top management team is often referred to as the black box (Neely et al., 2020) as the influences on them are diverse. Several scholars have attempted to demystify the “black box” and it is the intention of this study to advance the understating of how a component of the top management team decision making process influences the relationship between entrepreneurial orientation and organisational performance.

The final theory that the study is anchored on is the contingency theory which is premised on the basis that there isn't one universally acceptable approach to tackling problems, but the prevailing circumstances will dictate optimal approach.(Luthans & Stewart, 1977; Safari & Saleh, 2020) The relationship between entrepreneurial orientation and organisational performance has been found to be positive but contingent on a wide array of factors (Lumpkin & Dess, 1996, 2001; McGee & Peterson, 2019)for example growth stage of the business venture (Donbesuur, Boso, Hultman, 2020), and entrepreneurial efficacy (McGee & Peterson, 2019). Therefore, the contingency theory explains the moderation variable of the study being the top management decision making process on the established relationship between entrepreneurial orientation and organisational performance.

2.3. Entrepreneurial Orientation

Entrepreneurial orientation is described as the "processes, practices and decision-making" firms undergo in entering new markets. (Lumpkin & Dess, 1996, 2001) New market entry can be evidenced by new product and services rollout, expanding into new markets and segments, new business model as well as technological innovation. Entrepreneurial orientation is a firm construct that exists to the extent that it supports and continuously exhibits attributes linked to new entry (Covin & Wales, 2019).

Entrepreneurial orientation is a highly mature construct (Wales et al., 2021) that was first conceptualised by (Mintzberg, 1973) with three dimensions being innovativeness, proactiveness and risk taking. After that (Lumpkin & Dess, 2001) added two more dimensions being autonomy and competitive aggressiveness. The construct has over the years received much scholarly attention with (Anderson et al., 2015) reconceptualizing EO as having two orders entrepreneurial behaviours and managerial attitudes to risk. Entrepreneurial behaviours being expressed as innovativeness and proactiveness, and managerial attitudes to risk being risk taking. Scholars remain divided on whether they optimise three or five dimensions. However (Covin & Wales, 2019) noted this and his recommendation is for scholars to be explicit on the dimensions being deployed in their studies and ensure there is consistency in their conceptualisation and measuring instruments. For purposes of this research entrepreneurial orientation is expressed through the presence of five main attributes/processes being “autonomy, innovativeness, risk-taking, proactiveness, and competitive aggressiveness” (Lumpkin & Dess, 1996, 2001).

2.3.1 Dimensions of entrepreneurial orientation

Autonomy

Autonomy refers to the freedom given to teams or individuals to exercise or implement their ideas. (Covin & Wales, 2019). This is a valuable attribute that supports organisational performance and was found to be a moderating variable to entrepreneurial orientation particularly for new international market entry (Hakala, Siren, Wincent, 2016). This closely aligns with study by (McKenny, Short, Ketchen, Payne, Moss, 2018) that was assessing the ranking and importance of the various entrepreneurial orientation dimensions and found that autonomy was pervasive as a required attribute across varying contexts. High autonomy was consistently viewed as an important attribute and argued as a pre-condition to all other dimensions.

Innovativeness

Innovativeness is the naturally inclination to be creative and continuously experiment in product design and service offering. This includes striving for technological advancement through leveraging research and development. (Rauch et al., 2009) . Innovativeness can be seen as the rate of innovation generation and innovation adoption and a positive outcome of two of the other sub dimensions of entrepreneurial orientation being taking

and proactiveness. (Pérez-Luño et al., 2011). It has been noted that firms that innovate will successfully navigate environmental changes and attain better performance (Madhoushi, 2011).

Risk Taking

Risk-taking refers to the extent managers are willing to make significant resource commitments with the likelihood of failure. (Anderson et al., 2015; Lumpkin & Dess, 2001; Wales et al., 2021). The likelihood of failure might be significant in short term or at conception but might ultimately result in immense growth to the organisation (Rauch et al., 2009). A positive relationship has been found between risk taking and the rate of innovation generation in firms. However, (Dai, Maksimov, Gilbert, Fernhaber, 2014) found a negative U-shaped relationship between risk taking and international venture performance wherein a moderate risk-taking disposition was more effective than high risk disposition.

Proactiveness

Proactiveness refers to the act of acting in pursuance of expected new market opportunities. (Lumpkin & Dess, 2001) This opportunity seeking behaviour is normally characterised by new market and product introduction ahead of competition or market peers (Rauch et al., 2009). However (Dai et al., 2014) found that in terms of venturing into international markets, a firm was better off deploying either high or low level of proactiveness than a moderate proactiveness posture that was found to be detrimental to the firm. Proactiveness was also found to positively influence the rate of innovation adoption a firm (Pérez-Luño et al., 2011).

Competitive aggressiveness

Competitive aggressiveness refers to the tendency to directly confront market players in pursuing new markets or shifting dynamics within existing markets. (Lumpkin & Dess, 2001) Competitive aggressiveness was identified as an important EO dimension by study by (McKenny et al., 2018) that was assessing the importance and ranking of different EO dimensions across varying contexts. High autonomy and competitive aggressiveness were viewed as ranking high across various contexts and performance matrices although autonomy was more pervasive.

2.4. Organisational Performance

Organisational performance is a highly researched construct that is difficult to define, (Hubbard, 2009) defined organizational performance broadly as a measure that includes "financial performance, customer/market share, internal processes, learning and development, environmental and social performance". (Rezaei & Ortt, 2018) split organisational performance into different dimensions of Functional performance which was assessing performance at business functions and overall performance which was concerned with overall profitability, market share, and employment growth. (Hughes & Morgan, 2007) used product and customer performance as key measures in analysing business performance. (Birley & Westhead, 1990) advocated for including comparison with competitors when assessing organisational performance.

This diverse views by scholars emanate from organisational performance being a multi-faceted dimension due to the diverse stakeholder groups that the organisation serves. In addition, there has been an evolution of the underlying perspectives/theories influencing organisational performance from the shareholder perspective influenced by theory of the firm to stakeholder and currently sustainability perspective. (Hubbard, 2009)

The shareholder perspective is concerned with optimising value for the shareholder as the owners of the firm. This has its roots in the theory of the firm that posits that companies exist to make profit (Rajan & Zingales, 1998) and optimising shareholder value is overarching objective. This perspective uses financial measures such as return on investment and cost equity. An example is a tool that was anchored in the shareholder perspective is porters five forces. (Porter, 1980)

Another perspective which gained prominence is the stakeholder perspective anchored in stakeholder theory (Friedman & Miles, 2002) which focuses on optimising performance of the firm for the different stakeholder groups that include customers, employees, suppliers, government, shareholders. This perspective saw the advent of the balanced scorecard which measures performance across four quadrants being financial, internal processes, customers/market and finally learning and development. (Kaplan & Norton, 2001)

The move to sustainability has seen need to augment organisational performance reporting with performance on sustainability. This has seen proliferation of integrated reporting (IOD SA, 2016; Vitolla, Raimo, Rubino 2019) which seeks to not just provide financial metrics but the firms performance on other non-financial measures that impact various stakeholder groups. Scholars like (Hubbard, 2009) proposed sustainable balanced scorecard. In addition to the four dimensions (financial, internal processes, customers/market and learning and development) of the traditional balanced scorecard, the sustainability scorecard has two more dimensions on social performance and environmental performance.

The evolution of organisational performance measurement and diverse inputs validates the view that it is a multi-layered construct (Hubbard, 2009). Although different scholars may use different measures, organisational performance is often concerned with the firm attaining a desirable set of objectives and is often analysed as a dependent variable and outcome of some other variable for example organizational design (‘Cummings et al., 2020), entrepreneurial orientation (Chen et al., 2020). Therefore, organisational performance remains a key measure of gauging a specific business positioning the market.

2.5. Top Management Teams

The top management team is a grouping of senior ranking individuals that sit at the uppermost strategic level in the organisation tasked with the responsibility of driving the firm’s strategy and performance (Finkelstein, 2018). The success of the organisation depends on this group as a collective and not just individuals and according to (Hambrick, 1987) if their skills set, values and knowledge is not aligned to the operating and strategic context of the business, or their interpersonal relationships are strained then the business will encounter challenges. Similarly, if their attributes align to market and they are a cohesive complementary whole then the business will experience success.

Top Management teams play a pivotal role in influencing the outcomes of the firm (Eisenhardt, 2013) and their role is explained by the upper echelons’ theory (Hambrick & Mason, 1984; Neely, Lovelace, Cowen, Hiller, 2020) that explains that the role and interactions between these key players affect organisational outcomes. The dynamics of this group are complex and non-linear. (Díaz-Fernández et al., 2020)

(Lumpkin & Dess, 1996) outlined that the extent to which entrepreneurial orientation dimensions may be successfully implemented in a firm is dependent on contingencies that may be external like the environment or internal like "founders or top management". In advancing the upper echelons theory, scholars have investigated how various attributes of the top management team affect firm outcomes for example demographic attributes of the top management team (Boone, Lokshin, Guenter, Belderbos, 2019; Díaz-Fernández et al., 2020; Michel & Hambrick, 1992), psychographic attributes (Ferguson A, Ormiston M, Wong E, 2019; Yi et al., 2022), the impact of diversity of the team on performance (Boone et al., 2019), and the impact of the chief executive officer (Yi et al., 2022). Due to their role, top management teams remain key in strategy, management, and entrepreneurial research.

2.6 Top Management Team Decision making Process

The top management team's decision-making process is anchored in the upper echelons theory which states that the outcomes observed in a firm are influenced by the characteristics and outcomes of the top management team. (Hambrick & Mason, 1984). Indeed, the top management team was identified as the most dominant of the four contextual drivers of the strategic decision-making process (Shepherd & Rudd, 2014).

Some studies (Yi et al., 2022) highlighted dominance and importance of the chief executive officer in the strategic decision-making process but findings of other studies highlighted other factors within the top management team that could mitigate the effects of the chief executive officer. (She et al., 2020) found that power distance and high cognitive conflict within the top management team could mitigate the effects of a narcissistic chief executive officer. Therefore (Eisenhardt, 2013) finding's that organizational performance in entrepreneurial firms was influenced by the TMT structure and the decision-making process was fully supported.

The three aspects of the top management decision making process that impacted performance were decision making speed, conflict, and team cohesion (Eisenhardt, 2013) Below is definition of each of the sub dimensions.

2.6.1 Decision Making Conflict

Conflict has been found to be an unavoidable aspect of inter organizational relations because of the functional dependence that occurs between different parties. (C. K. de Dreu, 2006) Um, K. H., & Oh, J. Y. (2021) found conflict to be a multi layered construct whose impact on organisational performance depended on the type of conflict that was at play. (C. K. de Dreu, 2006) highlighted four key classifications of conflict being relational, status, process and task conflict. Other scholars (Medina et al., 2019) referred to three forms being affective, cognitive conflict and process conflict. Affective and cognitive conflict has received significant scholarly attention (Hurt & Abebe, 2015; Medina et al., 2019), whereas process conflict is less researched.

Cognitive conflict is a more functional form of conflict that is task dependent and is often associated with decision-making (Medina et al., 2019). This type of conflict has been found by several scholars (Amason, 1996a; Amason & Sapienza, 1997; Hurt & Abebe, 2015; Medina et al., 2019; Todorova et al., 2014; Um & Oh, 2021) to be beneficial as it facilitates quality strategic decision making and leads to positive outcomes for the firm. The positive outcomes were linked to increased creativity commitment (Amason, 1996a) satisfaction (Kotlyar and Karakowsky (2007), organizational performance (C. K. W. de Dreu & Weingart, 2003) and decision making (O'Neill et al., 2013).

Affective conflict is more personal and based on personal attacks (Amason, 1996b) This type of conflict creates animosity and lack of trust between team members. It has been found that team members engaged in this form of conflict don't want to continue to work together.

Process conflict is not as widely researched but involves conflict between team members on how to go about completing specific tasks(O'Neill et al., 2013). This conflict was found to have negative and long-lasting effects. It was found that where process conflict occurred early in the team's interactions, it led to elevated levels of all three conflict types throughout the life of the team. (Greer et al., 2008)

2.6.2 Decision making Speed

Decision making speed within the top management decision making process referred to the speed at which the top management team made strategic decisions. Scholars are concerned about the trade-off between decision making speed and quality of decisions made.(Shepherd et al., 2021) As well as whether the rate of decision making enables

implementation of strategy and ultimately organisational performance (Adomako et al., 2021)

2.7 Entrepreneurial Orientation and Organisational Performance

The relationship between entrepreneurial orientation and organisational performance has its theoretical grounding in the resource-based view (RBV) which postulates that a firm's competitive advantage derives from how it optimizes resources within its ambit of control for attaining competitive advantage (Barney et al., 2001) Therefore, Entrepreneurial orientation as a firm-level construct and its attributes being "innovativeness, autonomy, risk-taking, proactiveness and competitive aggressiveness" (Lumpkin & Dess, 2001) are resources in line with views expressed by Alvarez and Busenitz (2001). Some studies delved into the impact of dimensions of entrepreneurial orientation and (Lee et al., 2019) found that innovativeness impacted non-financial performance, whereas risk taking did not influence both financial and non-financial. (Madhoushi, 2011)'s view was innovation had positive impact on performance. High autonomy and competitive aggressiveness were found to positively impact organisational performance (McKenny et al., 2018). Where risk taking was concerned, some scholars found a U-shaped relationship in favour of moderate risk taking (Dai et al., 2014)

The relationship between EO and OP was also affirmed in academia where (Riviezzo et al., 2019) found a positive relationship between EO and performance in outcome in universities. However, the study found that the relationship was contingent and aligns with earlier findings by (Lumpkin & Dess, 1996, 2001) that there is a relationship between entrepreneurial orientation and organisational performance but has contingencies like environment and organizational factors. Other studies supported this view (McKenny et al., 2018; Rezaei & Ortt, 2018; Wales et al., 2021)

2.8 Entrepreneurial Orientation, Organisational Performance, and Top Management Teams

The relationship between entrepreneurial orientation and organisational performance is positive and contingent(Lee et al., 2019; Wales et al., 2021). One of the contingencies identified under organizational factors is top management team Characteristics. (Lumpkin & Dess, 1996). The top management characteristics include diversity, structure of the

management team, board interplay and interpersonal relationships (Boone et al., 2019; Díaz-Fernández et al., 2020; Finkelstein, 2018; Hambrick, 1987) One of the recommendations by (Rosenberg, 1968) is incorporating a third variable when reviewing a two-variable relationship to attain concise and targeted understanding and minimize misleading conclusions. Therefore, to enrich the entrepreneurial orientation and organisational performance body of work, we have incorporated top management team decision making Processes. (Eisenhardt, 2013) found that organisational performance in entrepreneurial firms was affected by top management team structure and decision-making processes. A strategic decision-making process that was quick, allowed for robust debate and deep conflict in assessing different options and cohesive TMT affected OP. Therefore, incorporating top management team decision making advances our understanding of upper echelons theory and the dynamics of the "black box".

2.8.1 The moderation role of top management team cognitive conflict on the relationship between entrepreneurial orientation and organisational performance.

Regarding the decision-making process, three attributes identified by (Eisenhardt, 2013) were speed, conflict, and harmony. It has been found that diversity in the TMT is valuable for fostering innovation and improving organizational performance. However too many varying views may lead to conflict which may be either be beneficial or non-beneficial depending on the source of the conflict. (Carton & Tewfik, 2016)

Although cognitive conflict is the more functional form of conflict. (Medina et al., 2019). Some scholars found negative impact of cognitive conflict for example cognitive conflict led to reduced satisfaction and team effectiveness (C. K. W. de Dreu & Weingart, 2003), reduced training motivation (Medina et al., 2019) and had a negative effect on the strategic decision-making process as it affected strategic decision comprehensiveness, team's need for relatedness and wasn't responsive to CEO empowerment leadership.(Yi et al., 2022) Therefore, high cognitive conflict was considered to moderate organizational performance.

Affective conflict is more personal and based on personal attacks (Amason, 1996b) and was found to result in team members not being willing to work together as they view the criticism from the conflict as personal attacks and that ultimately hurts the firm (Kotlyar & Karakowsky, 2007).The inability to work together impacts team cohesion and ability to have robust debate which does not enhance organizational performance (Eisenhardt,

2013). This was also buttressed by (Um & Oh, 2021) on negative consequences of affective conflict.

The study by (Um & Oh, 2021) found that affective and cognitive conflict were not two separate ends of a conflict continuum but rather separate constructs which deviated significantly from (Amason & Sapienza, 1997) view that as teams experience cognitive conflict, affective conflict may invertedly be triggered. The view held by (C. K. W. de Dreu & Weingart, 2003) is that both task and relational conflict were equally detrimental to team performance and team member satisfaction. The positive effects of conflict were found to quickly dissipate as conflict became more intense affecting information processing and organisational performance. The relationship between the two forms of conflict were found not to be linear but curvilinear (C. K. de Dreu, 2006) implying that too much or too little of the conflict might be detrimental to the functioning of the team. (Hurt & Abebe, 2015) supported this and specifically found that low to moderate cognitive conflict had positive impact on strategic decision-making quality and team members commitment to follow through on those decisions. Therefore, there is need to assess not just the type of conflict present in teams but the intensity of the conflict. (Todorova et al., 2014) found that task conflict can be energizing however that's dependent on contextual factors and intensity. Where conflict was expressed in intensive ways it was not energizing. The study also found that the presence of mild task conflict can result in job satisfaction.

The meta-analysis by (O'Neill & McLarnon, 2018) that reviewed all conflict types including process conflict found that task conflict was only beneficial to the performance of the teams when it occurred in the absence of relational and process conflict. The positive benefits of task conflict can only be derived where relationship and process conflict are minimised.

2.8.2 The moderation role of top management team decision making speed on the relationship between entrepreneurial orientation and organisational performance.

Another component of the decision-making process that was highlighted by (Eisenhardt, 2013) is decision-making speed. The argument was that strategic decision-making that took much longer did not have the requisite impact on performance. Other scholars noted the impact of other variables on decision making speed for example (Adomako, Frimpong, Amankwah-Amoah, Donbesuur, Opoku, 2021) also found that faster strategic decision-making speed had a better international performance for SMEs although this was

moderated by other environmental factors specifically "competitive intensity, resource flexibility, and structural organicity". However, (Shepherd, Mooi, Elbanna & Rudd, 2021) held the view that decision-making speed must be calibrated by the environmental context that which the firm is operating. Certain environmental contexts called for slower decision making to enable acquisition of sufficient data to aid the decision-making process whereas stable environmental conditions accommodated quicker decision making. In the context of our study, we hold the view that strategic decision-making speed can moderate the relationship between entrepreneurial orientation and organisational performance as supported by (Rahimnia & Molavi, 2020) findings that strategic decision-making speed had a positive effect on innovation and performance.

2.9. Conclusion

The theory and literature review detailed some of the work done in the field of entrepreneurial orientation, Organisational performance, and Top Management Team. Although a lot has been done, the literature review highlights an opportunity to still explore how the Top Management team influences the Entrepreneurial Orientation and Performance.

CHAPTER 3 – RESEARCH HYPOTHESIS

3.1 Introduction

The research objective is to understand how Top Management Team decision making processes moderate the relationship between entrepreneurial orientation and organisational performance and the chapter below outlines the conceptual model for the study.

3.2 Model Development

The question that embodies the research is how the top management team (TMT) decision-making process impact entrepreneurial orientation and organisational performance. Below is the proposed theoretical model of the study and the hypothesis for testing

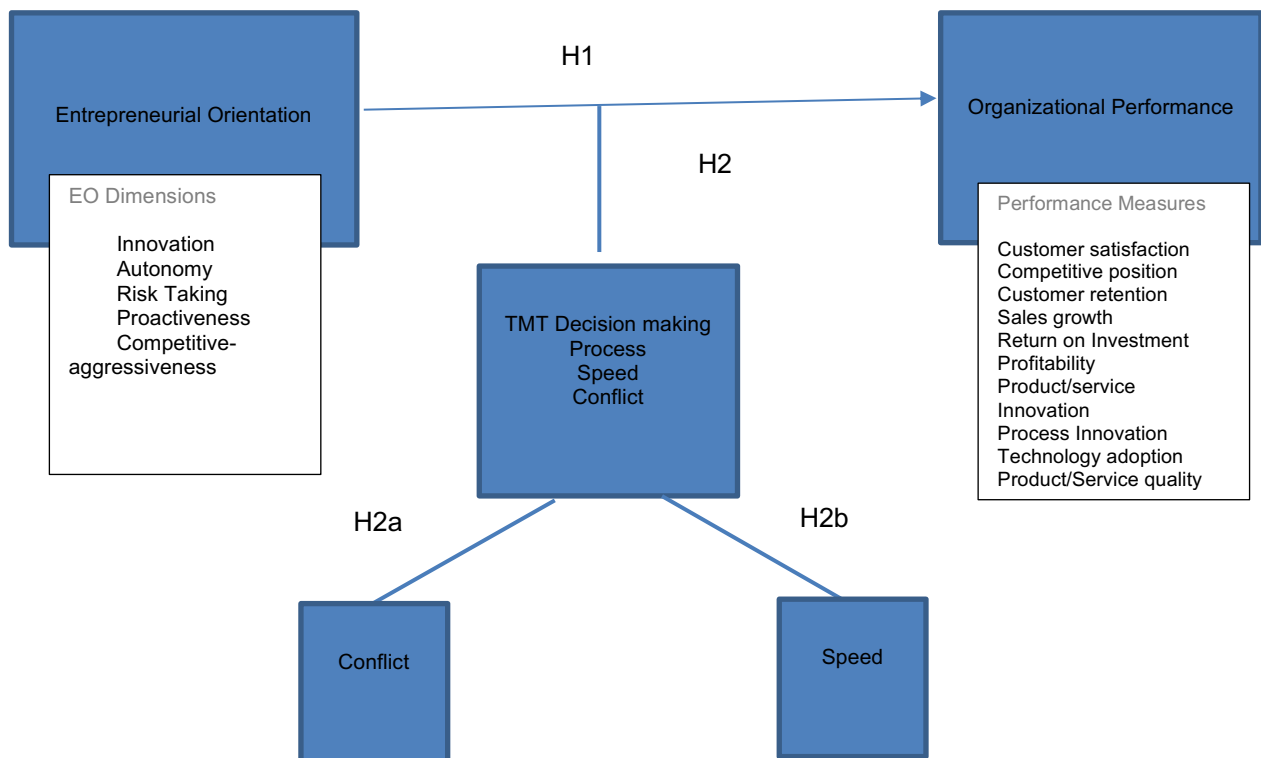


Figure 1 – Model Development

Hypothesis 1 – Entrepreneurial Orientation has an impact on Organizational performance

There is a positive relationship that has been established between entrepreneurial orientation and organizational performance. (Lumpkin & Dess, 1996, 2001; Rauch et al., 2009) and this has been collaborated by several other scholars (Chen et al., 2020; McGee & Peterson, 2019; Rezaei & Ortt, 2018; Wales et al., 2021). The relationship though positive is contingent on several other variables. Our study is anchored on the view of a positive relationship between the two and in line with that, entrepreneurial orientation is our independent variable whereas organizational performance is our dependent variable.

Hypothesis 2 – Top Management Team decision making process moderates the relationship between Entrepreneurial Orientation and Organizational Performance

Decision-making is a key construct espoused in the Entrepreneurial Orientation definition of “processes, practices and decision-making” firms embark on for new entry (Lumpkin & Dess, 1996, 2001). However, it's the decision-making process of the top management team that affects firm outcomes based on upper echelons theory (Carpenter et al., 2004; Hambrick & Mason, 1984; Neely et al., 2020). A finding by (Eisenhardt, 2013) found that decision-making processes that were high in conflict and allowed robust debate, executed timeously but still enabled top management team cohesion/unity had a positive relationship on performance. A moderator is a variable that affects the relationship between the independent and dependant variable (Hayes & Rockwood, 2020). Therefore, our second hypothesis is that the top management team decision making process moderates the relationship between entrepreneurial orientation and organisational performance.

Hypothesis 2a – Decision making conflict moderates the relationship between Entrepreneurial Orientation and Organizational Performance

(Eisenhardt, 2013) held view that high cognitive conflict was positive for organizational performance was disputed by, (Yi et al., 2022) who found that TMT cognitive conflict-affected sense of relatedness, comprehensiveness of decisions taken, and most

concerning was empowering interventions by CEO had minimal impact. (C. K. W. de Dreu & Weingart, 2003) found that both cognitive and affective conflict was negative for teams. And (Todorova et al., 2014) views were that the intensity of expression of conflict was negative to teams. Therefore, our view is top management team conflict moderates the relationship between entrepreneurial orientation and organisational performance.

Hypothesis 2b – Top Management Team Decision making speed moderates the relationship between Entrepreneurial Orientation and Organizational Performance

(Rahimnia & Molavi, 2020) held a view that decision-making speed was positive for innovation and performance. Prior studies also endorsed this view (Eisenhardt, 2013) (Adomako et al., n.d.). However, it was noted that the appropriate speed will be influenced by environmental variables, and in some instances, quick decision-making would not be appropriate. (Shepherd et al., 2021) Our view is that Decision making speed moderates the relationship between entrepreneurial orientation and organisational performance.

CHAPTER 4 – RESEARCH METHODOLOGY AND DESIGN

4.1 Introduction

This chapter provides an overview of the selected methodology of the study with a focus on outlining the overarching philosophy, methodology, research strategy, data collection and analysis process. The analysis details both the descriptive and statistical analysis, and the hypothesis testing. The conclusion of the chapter highlights the limitation of the study.

4.2 Purpose of research design

(Saunders & 'Lewis, 2017) referred to a descriptive study as one that aims to obtain accurate details on a wide range of issues, people, and events whereas an explanatory study seeks to identify and unbundle causal relationships. Where the two approaches are merged, the study becomes descripto-explanatory which is what our study aims to do. (Muijs, 2004) stated that for such studies, prior work must have been done on the variables being studied.

4.3 Philosophy

The assumptions that underpin and influence the trajectory any study follows fall into three categories being ontological, epistemological, and axiological assumptions. Ontology is influenced by researchers' perception of what would constitute reality. Epistemology, what constitutes knowledge and axiology being the researcher's values ('Saunders & 'Lewis, 2017). All the three categories influenced the study. From an Ontology and epistemology view the data being collected was objective, based on existing theories of resource based view and upper echelons theory, the investigation being on well-established constructs of entrepreneurial orientation, organizational performance, and the top management team decision making process. The study used structured, quantifiable data collection tools and analysis (Barnham, 2015) which limits subjectivity. The impact of the researcher's values were minimized by the use of structured data collection tools and analysis process leveraging on quantifiable data.

Our research has its philosophical roots in Positivism which seeks to create generalizations by testing established relationships or principles. The focus was on elimination of subjectivity or bias. (Saunders et al., 2016). However, the definition of positivism has received a lot of debate, and (Babones, 2016) referred to two strands of defining positivism. The first is logical positivism (comteian) that truths can be derived from basic principles and the second strand (Popperian) that truths can be falsified by empirical testing. Our study was based on existing theories of resource-based view and upper echelons theory and sought to test-defined constructs being Entrepreneurial Orientation, Organisational performance, and Top Management Team. Therefore, study aligned fully with the positivism approach. To conduct the requisite test, the study used pre-determined and structured data collection techniques. The techniques included use of a five- and seven-point Likert Scale, questions were categorized by construct, and used established statistical tests to eliminate the risk of interpretation bias.

4.4 Approach selected

A deductive process is conceived from a few established facts and build systematically until conclusion. (Saunders & Lewis, 2017) used "top-down" flavour to articulate the methodical and highly structured process. Our study was anchored on two theoretical frameworks being the RBV theory which describes the relationship between EO and OP (Barney et al., 2001) And the UET explains the influence of the TMT decision making process on performance (Hambrick & Mason, 1984; Neely et al., 2020). The study tested the extent to which TMT decision making processes moderates the EO and OP relationship. The hypotheses that were developed and tested were anchored on these frameworks, explaining the deductive nature of the study.

4.5 Methodological choices

The general approach of a research process that dictate the tools is called a methodology (Leedy & Ormrod, 2005) . There are two decision points to consider regarding quantitative studies, (Barnham, 2015) first is ability to count the incidents in a structured way and second is that there is a significant number of incidents to measure. The constructs of our study being EO, OP and TMT are well known and satisfy the two criteria specified.

(Saunders et al., 2016) stated that a research design that utilizes only one data collection tool is referred to as a mono method. Therefore, our study was a mono method

quantitative study as only used online questionnaires as a collection tool. Online questionnaires are deemed sufficient to facilitate collecting data for ultimately attaining the objectives of the study.

4.6 Strategy

The ideal strategy to deploy is one that enables attainment of stated research objectives within the existing time and resources constraints. (Leedy & Ormrod, 2005; Saunders & Lewis, 2017). In line with the broader positivism philosophy and deductive approach adopted, the deployed strategy was use of survey. (Crane, Henriques, Husted, 2018; Ellis & Levy, 2008). The survey leveraged off structured online questionnaires and distributed to a wide base. The selected strategy limits opportunities to source granular or detailed data. (Saunders & Lewis, 2017) However that limitation will not adversely impact the study as it is not explorative.

4.7 Population

Population refers to the holistic set of diverse variables that can be people, entities, locations. (Saunders & Lewis, 2017). The population of the study was medium, and large firms operating in Botswana. The definition of these entities is as per the Department of Small Business Development (2019).

4.8 Unit of analysis

The object that is being studied is called a unit of analysis (Rubin & Babbie 2009). The unit of analysis is the medium and large firms. The selection of these entities is to ensure there is access to a TMT team to facilitate analysis of the TMT decision-making process. The selection of top managers also aligned with recommendation that respondents for EO research must be individuals from senior cadres in the organisation as those have been found to provide quality information (Covin & Wales, 2019). Therefore Middle, senior, and executive managers in medium and large companies were target respondents. The respondents also had to be domiciled in Botswana to ensure all respondents have the same national culture context. (Elsayed-Ekjiouly & Buda, 1996; Hofstede, 2011)

4.9 Sampling method and size

The population of our study is extensive and there is no complete list of the entities/firms, due to this limitation, non-probability sampling was optimised (Saunders & Lewis, 2017). The researcher's judgement informed the target sample, and this methodology is purposive sampling (Saunders & Lewis, 2017). Publicly available databases like Botswana Stock exchange, Tshipidi board, and Business Botswana were also utilised in targeting middle, senior and executive managers from those firms targeted.

Attaining an appropriate sample size is a very key within quantitative research, particularly as one of the key criteria of a quantitative study is the ability to obtain a base that enables meaningful measurement (Barnham, 2015). The appropriate sample size for the study was set at 120 respondents to align with sample sizes for similar studies. However, a total of 156 responses were received and after further clean-up of the respondents, the study remained with 139 valid respondents. The exclusions were 6 from the pilot study and 11 that were not middle, senior, or executive managers.

4.10 Measurement Instrument

The measurement instrument was an online survey questionnaire using google forms. The questionnaire was divided into five sections. The first section was the demographic data for both the Firm, manager, and Top Management Team and included details such as the size of the firm, length of service, and size of the TMT. The next four sections were focusing on each of the constructs being Entrepreneurial Orientation, Organisational Performance, and Top Management Team Conflict and Top management team decision making speed.

Entrepreneurial Orientation

The second section of the survey was measuring Entrepreneurial Orientation along the following five dimensions; autonomy, innovativeness, risk-taking, proactiveness, and competitive aggressiveness. (Lumpkin & Dess, 1996, 2001). The instrument used was developed by (Hughes & Morgan, 2007) and measures the five sub-dimensions of EO on a 7-point Likert scale ranging from "strongly agree" to "strongly disagree". The Cronbach alpha for the instrument was 0.80

Organisational performance

The third section of the survey was measuring organisational performance on a total of ten performance variables (sales, revenue, employee numbers, net profit margin, product/service, adoption of new technology, customer satisfaction) and optimized a measure adopted from by (Wiklund & Shepherd, 2003), (Thoms, Dose & Scott, 2002). The questions assessed company performance in the context of the market or competition and used measured on a five-point Likert scale ranging from “strongly agree” to “strongly disagree”. The Cronbach alpha for the instrument was 0.82

Top management decision making Conflict

The fourth section had was measuring the Top Management team decision-making conflict and used a 5-point Likert scale ranging from “None” to “a great deal”. The measurement tool was used by (Amazon, 1996c)

Top management decision making Speed

The fifth section was measuring the Top Management team decision-making speed on a 7-point Likert scale and used measures used by (Adomako et al., n.d.). The seven-point Likert scale ranged from “very strongly agree” to “very strongly disagree” and had a Cronbach alpha of 0.91

4.11 Data gathering Process

Ethical clearance was sought and obtained in line with University of Pretoria’s regulations. This process was done before the questionnaire is shared and piloted with a handful of middle and senior managers. The value of the pilot test was to identify potential interpretation issues and proactively resolve before questionnaire was distributed fully and opportunity to remediate errors lost. (Saunders & Lewis, 2017).

Once feedback and amendments from the pilot test were done, the final questionnaire was distributed largely through WhatsApp with a handful shared through email. The total duration for the survey was four weeks within the six weeks’ timeline recommended by (Saunders & Lewis, 2017). Response rates were monitored every two days and reminders sent bi-weekly. During monitoring process, it was noted that a few respondents fell outside

the target organisational ranking demographic therefore a decision to close the survey at 155 respondents was made.

The survey was sent to a total of 190 respondents from the target population and 156 responses were received with complete responses. This represented 82% response rates. An acceptable response rate on quantitative studies is of 60% (Fincham, 2008)

Once the target number of respondents were reached the data was saved within google drive and the excel dump migrated to SPSS for the next level of analysis.

4.12 Analysis approach

4.12.1 Data Preparation

The data from the online survey was downloaded into excel and cleaned for any identifiers. Thereafter data was assessed for missing values across all respondents and variables using missing value pattern analysis. The descriptive data such as gender, role, Likert scale scores was then coded to enable further statistical analysis. The data was analysed using IBM Statistical Package for Social Sciences (SPSS).

4.12.2 Descriptive Statistics

The following demographic attributes were used, respondents' age, gender, management level, tenor at the organization, size of top management team, and organization size. The descriptive statistics were computed from SPSS and frequencies unpacked across the following demographic groups, gender, tenure, role profile, top management team size, organization size.

Cross tabulations were also done across the demographic groups to provide greater insights. The cross tabulation on Role Profile and gender, Role profile and number of years in the company.

The descriptive statistics was completed with Construct correlations that provided correlations across all the constructs of the study being Entrepreneurial orientation (EO), Organisational performance (OP), Top Management Team decision making Process (TMT), Conflict (CONF) and Speed (SPEED)

4.12.3 Statistical Analysis

Normality

The data is expected to be normally distributed to ensure there are no misinterpretations and invalid inferences and test for normalcy must be done before proceeding with other statistical tests (Razali, N. M., & Wah, Y. B. (2011) Therefore, the quantile-quantile plot (Q-Q plot) was considered appropriate as it accommodates varying distributions and sample sizes Razali, N. M., & Wah, Y. B. (2011). The Q-Q plot is a probability plot for transformed values. It tests the normality of residuals as stated in the assumptions of regression analysis. There was no significant deviation from normality which was is represented by the diagonal except for two data points slightly outside the upper and lower bounds. There were no outliers and extreme values.

Tests for Validity and Reliability

Validity is concerned about whether the findings are truly aligned to the study whereas reliability is concerned with producing consistent findings from methods deployed in collection and analysis. (Saunders & Lewis, 2017).

Reliability of a model is assessed through a series of statistical tests starting with Cronbach alpha. A Cronbach Alpha of 0.70 is required for a construct to be viewed as valid (Butts & Michels, 2006). The Cronbach alphas were deployed for each of the constructs and two constructs and were found to be above the minimum for 0.65 for all constructs except Competition (a sub dimension of entrepreneurial orientation) and decision-making Speed (a sub dimension of Top management decision making process). The two were then discarded from the study as a result. A Cronbach alpha below 0.70 can be accepted where there is a formative construct (Bonett & Wright, 2015)

Discriminant validity assess the magnitude with which factors that measure a specific construct are desolate or unrelated (Wang & Wang, 2012). The process entails using the Fornell- Larcker's criterion which involves determining whether each factor's square rooted average variance extracted (AVE) exceeded correlations with the remaining constructs (Fornell & Larcker, 1981). The Variance Extracted measure shows the total amount of variance in the indicators that the latent construct accounts for (Hair Jr., Black,

Babin, & Anderson, 2010) and showed that all the constructs had AVE values greater than 0.5(Field, 2009).

All the factors under review passed the discriminant validity test that was conducted. The bivariate correlations exhibited a desirable trait whereby the inter-construct relationship was below the threshold of 0.85 reflecting that constructs are not too correlated which might have led to multicollinearity (Field, 2009). A comparison of the square root of each AVE in the diagonal with the correlation coefficients for each construct, reflected higher AVEs than each respective correlation coefficients. This reflected that the dimensions correlate but there are discriminant differences. All the construct passed the divergent validity test.

Composite reliability also referred to as construct reliability measures internal consistency in scale items by providing performance a latent construct in relation to the construct and an acceptable range of latent constructs facilitates composite reliability (Netemeyer et al., 2003). Given the results for Composite Reliability and AVE, all the constructs fully satisfy the convergent validity requirements.

Finally, confirmatory factor analysis (CFA) was used for analysing discriminant and convergent validity. An Average Variance Extracted (AVE) measures the variance in indicators that a latent variable accounts for and an acceptable AVE has values greater than 0.50. The collective results of the CR and AVE signal convergent validity and satisfies requirements. (Butts & Michels, 2006; Hair et al., 2019)

Model Fit

Model fit was conducted following successful reliability and validity testing. Model fit is a series of indices that assesses whether the measurement tool operates as per intent, specifically whether it measures the specific items it is meant to measure. (Browne & Cudeck, 1992) The indices considered for this study were ; goodness of fit index (GFI), adjusted goodness of fit (AGFI), Root mean square error of approximation (RMSEA), Chi Squared, normed fit index (NFI) and comparative fit index (CFI).

The GFI and AGFI has a minimum threshold of 0.70(Butts & Michels, 2006), the Chi-squared must be as close to zero as possible. RMSEA must be below 0.08 (Steiger, 2007a). And NFI and CFI must be greater than 0.80 (Dunham et al., 1994)

4.12.4 Hypothesis Testing

EO is the independent variable for our study and OP the dependent variable. To test the relationship between the two, a multiple linear regression was used. Process entailed verifying all underlying assumptions for a linear regression. The first assumption that was satisfied was that the two constructs must be continuous. Second that they have a linear relationship, and this was verified through the positive correlation. Third that they are no outliers, and this was verified through the normal distribution of the graph. Fourth that the cases are independent and a Durbin Watson statistic remained within the acceptable range of 1.5 to 2.5.

Multiple linear regression was used to test the relationship between independent and dependent variable resulting in rejection of the null hypothesis. Pearson's correlation coefficient was also utilized. Pearson's correlation coefficient is considered appropriate where the aim is to establish a linear relationship and its especially helpful in determining the strength of the linear relationship. (Rubin, 2009)

“A variable's effect on another is moderated if its size depends on a third variable—a moderator” (Hayes et al). The multiple regression analysis seeks to understand the extent to which the moderating variable influences the relationship between the dependent and independent variables. According to (Mason & Perreault, 1991) multiple regression serves two purposes, first is prediction, identifying a set of predictors that would affect the dependent variable. The second component is to conclude the magnitude of those predictors.

4.13 Quality controls

To ensure that the measuring instrument, in this case the questionnaire is comprehensive, a pilot test was conducted. This is because the quality of data collected largely depends on the instrument deployed (Leedy & Ormrod, 2005; Saunders & Lewis, 2017). A total of 6 respondents who met the sampling criteria responded to survey before it was officially

opened and identified grammatical errors and typos that were missed. These were corrected before the survey was opened officially.

To keep the data collected from the survey safe, data was stored in an google drive and will later be stored in a secure storage facility availed by the University of Pretoria.

4.14 Conclusion

Chapter 4 outlined the process that was followed on the methodology and design,. Thereafter a detailed the range of descriptive statistics were provided for the various demographic grouping, statistical tests conducted and finally hypothesis testing. Finally the quality controls deployed were outlined.

CHAPTER 5 – FINDINGS AND RESULTS

5.1 Introduction

This chapter provides the results garnered from data collection and the subsequent data analysis. The scope of the analysis was both descriptive and statistical. The submission articulates data gathering and preparation process, the descriptive statistics, statistical tests deployed and hypothesis testing outcome.

5.2 Data Collection

The survey was sent to a total of 190 respondents from the target population and 156 responses were received with complete responses. This represented 82% response rates. An acceptable response rate on quantitative studies is of 60% (Fincham, 2008)

A review of the raw data was done and non-qualifying respondents removed . The initial 6 respondents from the pilot study were removed. This was then followed by removal of 11 respondents who fell outside the target respondents that needed to either be in middle or senior/executive management. The removal of non – qualifying respondents provided a total of 139 valid respondents.

5.3 Data Preparation

The raw data was collected without any identifiers such as name of company, IP addresses or email addressed but an assessment of the raw data was still done to evaluate if any other identifiers would have been included in the data set. However, none were identified.

The data was also assessed for missing values through missing value pattern analysis however none were found

Figure 2 below shows the patterns for missing values. There were 0 missing values for the 54 variables and 139 valid respondents

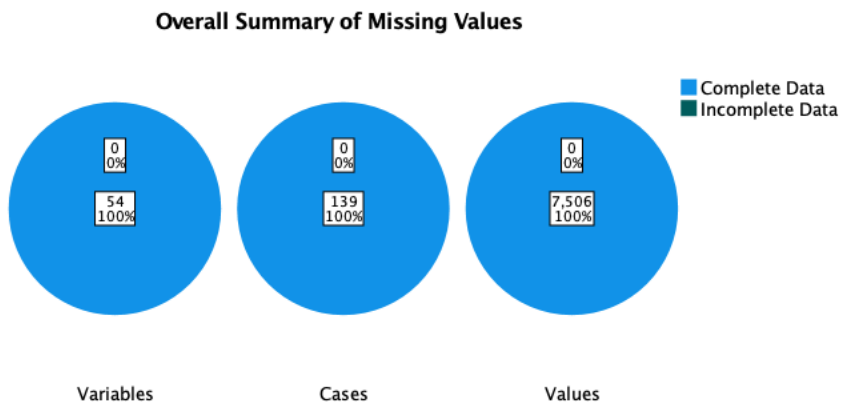


Figure 2 – Patterns of missing Values

The Likert scale responses were then coded to translate the Likert scale response categories into numeral format.

5.4 Descriptive Statistics

5.4.1 Demographic Analysis

A total of five demographic questions were asked being gender, number of years in the company, classification of role, company revenue and size of top management team. The analysis of those demographics is presented below.

5.4.2 Gender Demographics

There were a total of three categories being Female, Male and Prefer not to say. A total of 50.40% of valid respondents were female, 48.90% male and 0.70% opted not to say.

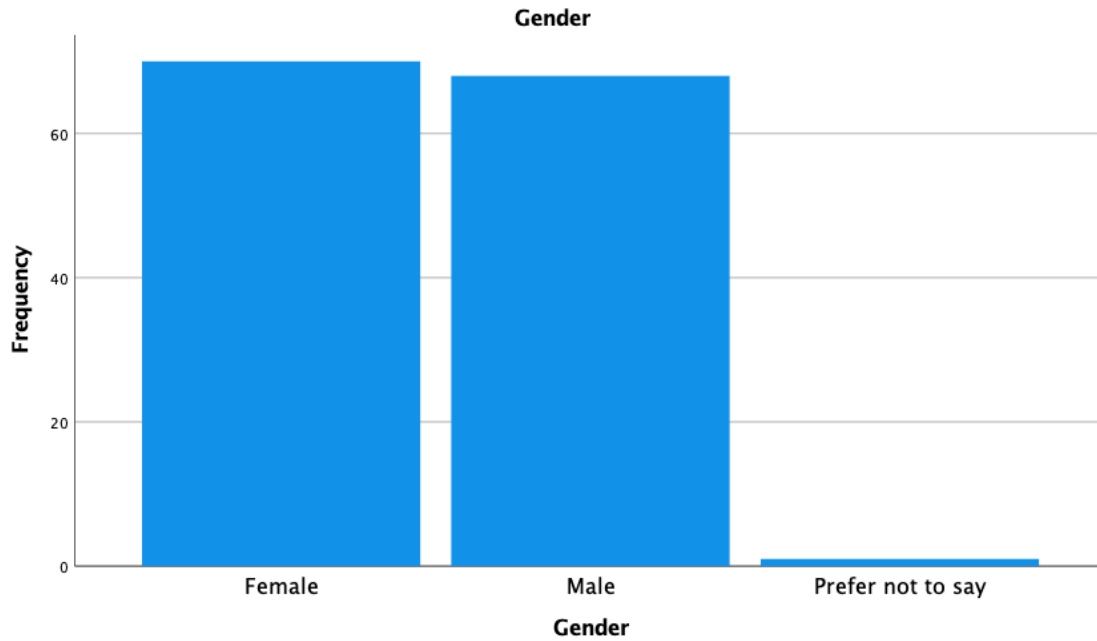


Figure 3 - Gender Demographics

5.4.3 Tenure Demographics

The question on tenure at the company was categorised into four groups; Less than 1 year, 1- 5 years, 6 – 10 years, 11 – 14 years. The majority of the respondents being 40.30% were in the 6 to 10 years, followed by 27.30% in the 1 to 5 years tenure. The lowest number of respondents were in more than 15 years tenure bracket representing 6.50% of the respondents.

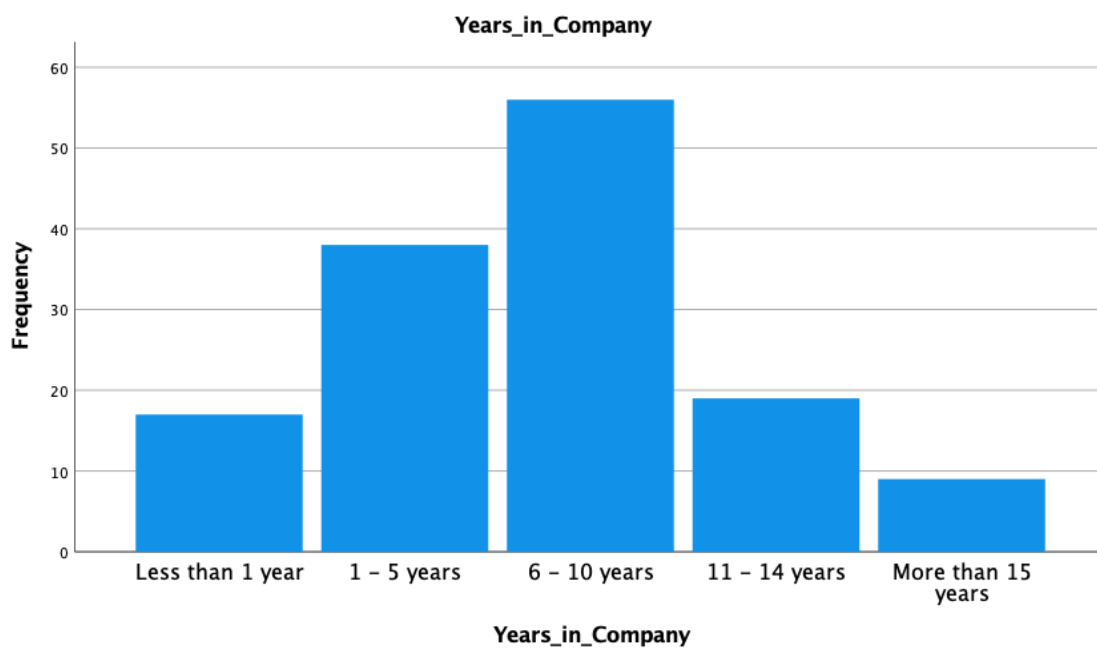


Figure 4 - Tenure demographics

5.4.5 Organisation Level Demographics

The organisational level demographics were categorised into two valid categories being middle management and senior/Executive management. The middle management category contained 64% of respondents while senior/executive management accounted for remaining 36%

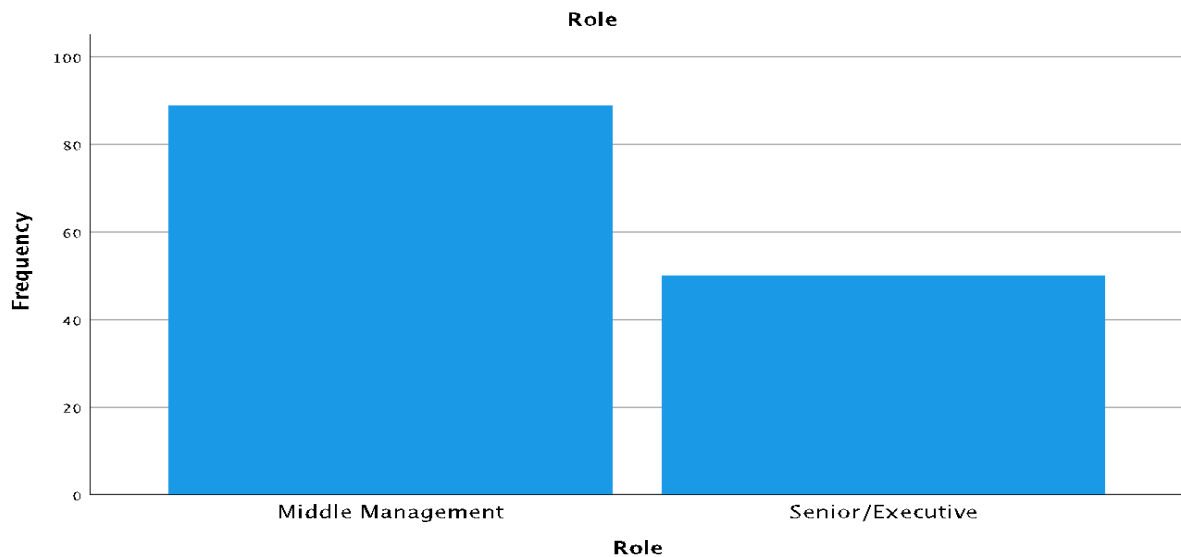


Figure 5 - organisation level/ranking demographics

5.4.6 Top Management Team Size Demographics

The top management team size was categorized into 5 groups of less than 5 members, 6 to eight members, 9 to 10 members, 11 to 15 members and 16 or more members. The respondents were evenly distributed in all groups except the 6 to 8 members group that had the highest number at 26.60%

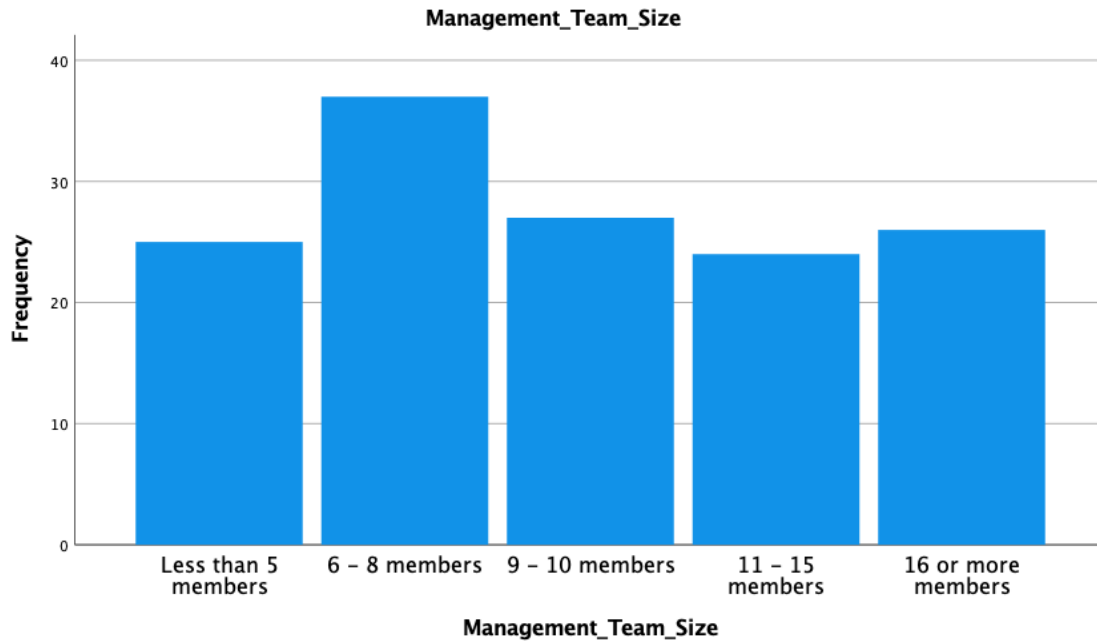


Figure 6 – Top Management Team Size demographics

5.4.7 Organisation Size Demographics

The organisation size was categorised into four income groups: Less than BWP 20 Mio, BWP 20 – 49 Mio, 50 to 99 million, > 100 million. Majority of the respondents 67.60% were from companies with income > BWP 100 million which represent large corporates, while entities with revenue less than BWP 20 million accounted for 14.40% and the remaining 18% were split equally between the BWP 20 M to BWP 49 million, and BWP 50 to 99 Million.

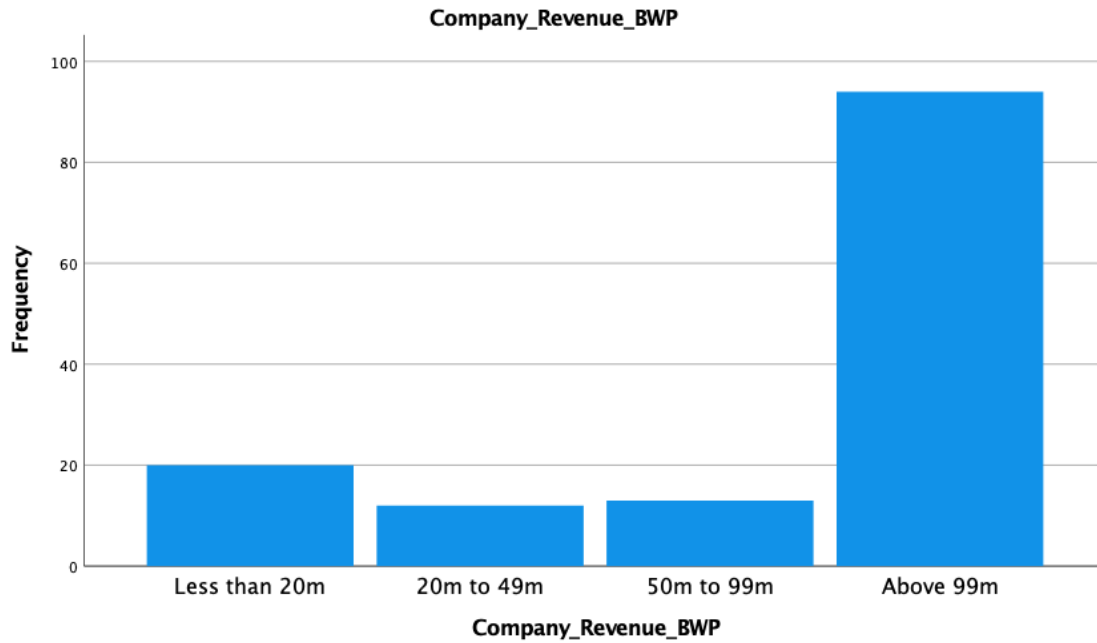


Figure 7 - Company Size demographics

5.4.8 Crosstabulations

Role Profile and Gender

There were higher female respondents in middle management than Male counterparts, whereas the Senior/Executive role had higher male representation. The distribution of roles across male and female was consistent with more middle managers than senior/executive. This is expected as there is a larger pool of middle managers in the organizational hierarchies.

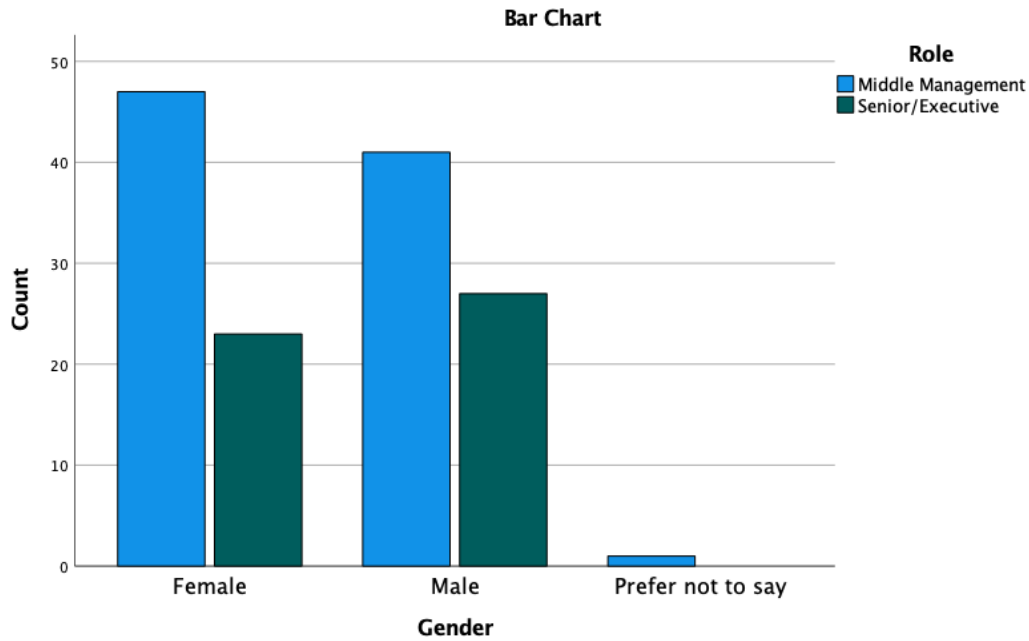


Figure 8 - Role and Gender Crosstabulation

Role Profile and Number of Years in the Company

The middle management was dominated by respondents that had been in the company for 6 to 10 years while the middle/ executive management. The tenure for middle managers was approximately normally distributed whereas the distribution of senior managers with respect to tenure was skewed to the left.

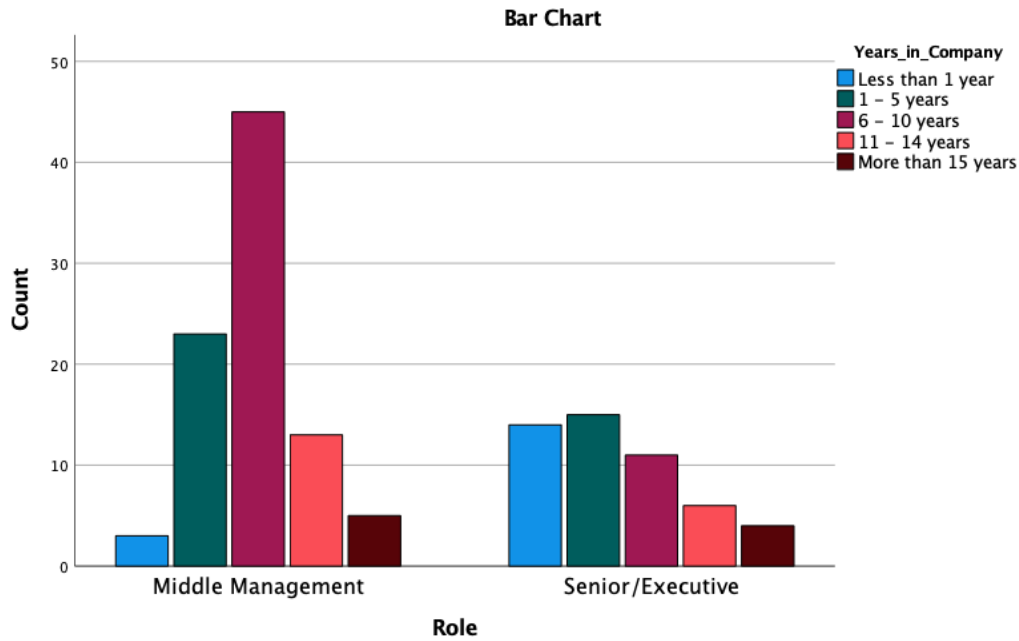


Figure 9 - Length of Service and Role Rank Crosstabulation

5.5 Statistical tests

5.5.1. Cronbach Alpha

To test for reliability of constructs, Cronbach alpha was used. A Cronbach Alpha of 0.70 is required and the following had Cronbach alphas in excess of 0.70 – risk, innovation, proactiveness, autonomy, organisational performance, affective conflict. However Competition and Decision making speed were discarded due to low Cronbach Alphas of 0.645 and 0.456 respectively. However Cognitive Conflict was accepted with a Cronbach Alpha of 0.694 as is close to 0.70 and is a formative construct (Bonett & Wright, 2015)

Table 1 - Construct Cronbach Alphas

	Cronbach's Alpha	N of Items
Risk	0.777	3
Innovation	0.916	3
Proactiveness	0.824	3
Autonomy	0.912	6

Competition	0.645	3
Organizational performance	0.870	10
Affective Conflict	0.924	4
Cognitive Conflict	0.694	3
Decision Making Speed	0.456	3

5.5.2 Confirmatory Factor Analysis (CFA)

In order to test reliability and validity of the constructs a confirmatory factor analysis (CFA) was performed. The CFA method assessed both discriminant and convergent validity.

Discriminant Validity Assessment

The bivariate correlations between the latent factors shown in Table 2 below exhibited a desirable trait whereby the inter-construct relationships were below the threshold of 0.85 (Field, 2009). This shows that the constructs are not too correlated which might have led to multicollinearity (Field, 2009). Further, the diagonal reflected higher AVEs than each respective correlation coefficient. This reflects that the dimensions correlate but there are discriminant differences. All the constructs passed the divergent validity test.

Table 2 - Results of Fornell-Larcker Criterion Test

	RISK	INNO	PROA	AUTO	OP
RISK	0.759				
INNOV	0.740	0.887			
PROA	0.743	0.753	0.784		
AUTO	0.673	0.737	0.736	0.804	
OP	0.654	0.716	0.715	0.617	0.752

Average Variance Extracted (AVE)

The Average Variance Extracted (AVE), which reflects the overall amount of variance in the indicators, showed that all the constructs had AVE values greater than 0.5 (Field, 2009).

Table 3 - AVE Dimensions

	RISK	INNOV	PROA	AUTO	OP
AVE	0.5762715	0.7876681	0.6151889	0.6467502	0.5658126

Composite Reliability (CR)

The minimum requirement of a construct reliability is 0.6. (Field, 2009). Therefore, all the constructs had a composite reliability above the minimum requirement as shown below

Table 4 - Composite Reliability results

	RISK	INNOV	PROA	AUTO	OP
CR	0.7765738	0.9164122	0.8244731	0.9119465	0.8676147

The factor loadings for each of the factors were as follows:

Table 5 - Factor Loading results

Construct/Factor	Indicator/Variable	Factor Loading
RISK	RISK1	0.570
	RISK2	0.671
	RISK3	0.837
INNOV	INNOV1	0.914
	INNOV2	0.894
	INNOV3	0.851
PROA	PROA1	0.828
	PROA2	0.764
	PROA3	0.755
AUTO	AUTO1	0.838
	AUTO2	0.887
	AUTO3	0.867
	AUTO4	0.847
	AUTO5	0.766
	AUTO6	0.611
OP	OP2	0.529
	OP3	0.549
	OP4	0.507
	OP5	0.550
	OP6	0.424
	OP7	0.802
	OP8	0.709
	OP9	0.686
	OP10	0.593
EO	INNOV	0.924
EO	AUTO	0.797
EO	RISK	0.844
EO	PROA	0.924
OP	EO	0.774

Given the results for Composite Reliability, AVE and factor loadings above 0.50 Convergent validity has been established.

CFA Results

The measurement model used in the Confirmatory Factor Analysis is depicted in the graph below

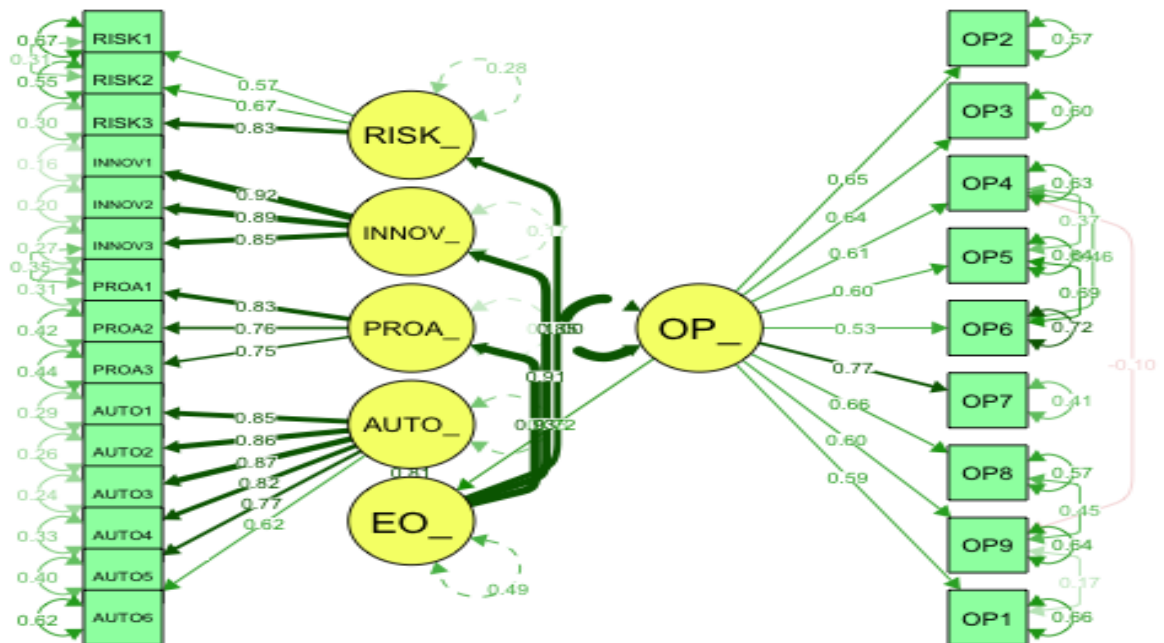


Figure 10 - Confirmatory Factor Analysis Results

RISK = Risk, INNOV = Innovation , PROA = Proactivity, AUTO = Autonomy, OP = Organisational Performance, EO = Entrepreneurial Orientation

5.5.4 Q-Q Plot for Residual Normality

There was no material deviation from normality in the diagonal. The slight deviations above and below the diagonal generally cancel each other out. Only two data points were observed outside the upper and lower bounds. There were no outliers and extreme values.

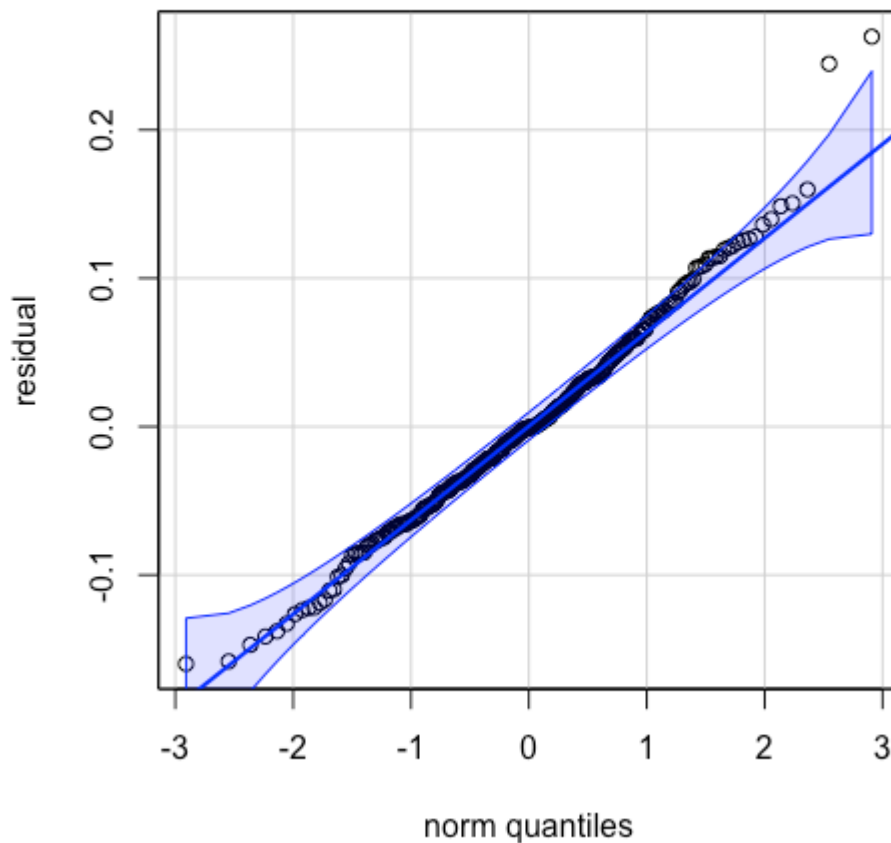


Figure 11 - Q-Q Plot Results

5.5.5 Construct Correlations

There is a negative correlation between Organisational performance (OP) and TMT Decision making process (TMT) and TMT Decision making Speed (SPEED). Another negative correlation is between Entrepreneurial Orientation (EO) and TMT and SPEED

Table 6 - Construct Correlation Results

		OP	EO	CONF	SPEE D	TMT
OP	Pearson Correlation	1	.625**	-.034	-.340**	-.303**
	Sig. (2-tailed)		<.001	.690	<.001	<.001
	N	139	139	139	139	139
EO	Pearson Correlation	.625**	1	-.062	-.396**	-.365**
	Sig. (2-tailed)	<.001		.465	<.001	<.001
	N	139	139	139	139	139
CO NF	Pearson Correlation	-.034	-.062	1	.001	.548**
	Sig. (2-tailed)	.690	.465		.987	<.001
	N	139	139	139	139	139
SPE ED	Pearson Correlation	-.340**	-.396**	.001	1	.838**
	Sig. (2-tailed)	<.001	<.001	.987		<.001
	N	139	139	139	139	139
TMT	Pearson Correlation	-.303**	-.365**	.548**	.838**	1
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	
	N	139	139	139	139	139

** . Correlation is significant at the 0.01 level (2-tailed).

5.5.6 Model Fit

The parameters in the model were estimated and the goodness of model fit was assessed (Suhr, 2011). The fit indices remained within threshold reflecting that the model was appropriate for the data

Table 7 - Model Fit Results

Test for fit	Result	Threshold	Verdict
CFI	0.930	> 0.90	Pass
GFI	0.959	> 0.90	Pass
NFI	0.927	> 0.90	Pass
RMSEA	0.07	< 0.08 or less for goodness of fit (Steiger, 2007).	Pass
AGFI	0.978	> 0.90	Pass
RFI	0.927	close to 1 indicates a good fit (Stegier, 2007)	Pass

Chi-squared	0.002	Must be as close to zero as possible (Hu & Bentley, 1999)	Pass
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5.6 Hypothesis Testing

Hypothesis 1 - Entrepreneurial Orientation has an impact on Organizational performance

Linear Regression

To test the hypothesis simple linear regression was used which allows for testing how one variable, influences another. The independent variable for the study is entrepreneurial orientation and organisational performance is the dependent variable.

The following is a summary of assumption of regression analysis were verified and the outcomes.

Assumption 1 The constructs entrepreneurial orientation and organisational performance are continuous variables – passed.

Assumption 2: The two variables must have a linear relationship, correlated. In this case, EO and OP have a positive correlation coefficient of 0.625 and a p-value less than 0.05– passed.

Assumption 3: No significant outliers are present from the Q-Q plot test– passed.

Assumption 4: Cases are independent - Durbin- Watson Statistic is between 1.5 and 2.5 – passed

Assumption 5: Data shows homoscedasticity.

Assumption 6: The residuals (errors) of the regression approximate normal distribution. – passed

Figure 12 below shows that the distribution of the residuals follows a normal distribution which satisfies the assumption of regression.

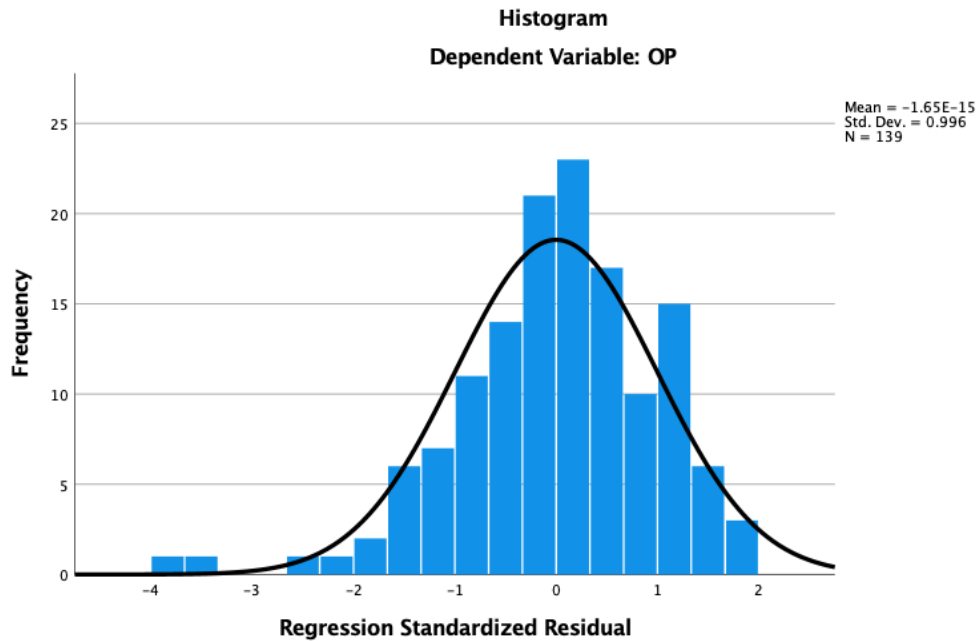


Figure 12 - Distribution of Residuals

Table 8 below shows the variables that were used for the linear regression.

Table 8 - Linear Regression Variables

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	EO ^b	.	Enter

a. Dependent Variable: OP

b. All requested variables entered.

Model Summary

The model summary table reports the strength of the relationship between the model and the dependent variable (Frost, 2019a). The Model Summary Table 9 below provides the R and R^2 values where the R -value provides the multiple correlation coefficient and The R^2 represents the variation by which the dependent variable (organisational performance) that can be explained by the independent variable (entrepreneurial orientation). The table also provide Durbin Watson which is a method that tests autocorrelation being the magnitude of correlation between values of same predictors. (White, 1992)

An *R*-value of 0.625 indicates a moderately strong correlation between entrepreneurial orientation and organisational performance. The *R*² value of 0.386 or 38.60% is moderately low implying that a 38.60% variance in the OP (dependant variable) as a result of EO (Independent Variable). Durbin Watson showed a value of 1.9014. An acceptable range indicative of no autocorrelation is between 1.5 and 2.5 (Uyanto, 2020)

Table 9 - Multiple Regression Model Summary

<i>Model Summary</i> ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.625 ^a	.391	.386	.54348	1.914

a. Predictors: (Constant), EO

b. Dependent Variable: OP

ANOVA

The *p*-value in Table 10 below is <0.001, which is less than *p*=0.05, meaning the regression model is statistically significant and fits the data. The *F*-ratio tests whether the overall regression model is a good fit for the data. The table shows that the model explaining the relationship between OP and EO is statistically significantly, $F(1,154) = 77.005, p < 0.05$.

Table 10 - ANOVA Results

<i>ANOVA</i> ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	25.953	1	25.953	87.866	<.001 ^b
	Residual	40.465	137	.295		
	Total	66.418	138			

a. Dependent Variable: OP

b. Predictors: (Constant), EO

Coefficients

The coefficients table below shows that the intercept (constant) and EO are both statistically significant with p-values of less than 0.05. The resultant regression model is as follows:

$$OP = 1.724 + 0.625*EO$$

The regression model shows that OP and EO are directly proportional to each other. A one unit increase in EO will result in a 0.625 increase in OP.

Table 11 - Coefficients Results

<i>Coefficients^a</i>		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	1.724	.226		7.643	<.001
	EO	.408	.044	.625	9.374	<.001

a. Dependent Variable: OP

Conclusion

Multiple linear regression was run to predict the dependent variable (OP) from the independent variable (EO). EO significantly predicted with degrees of freedom of $F(1, 137) = 87.866$, $p < 0.05$, and the variance explained $R^2 = .386$.

There is therefore sufficient statistical evidence that entrepreneurial orientation affects organisational performance

Hypothesis. 2 - Decision making conflict moderates the relationship between Entrepreneurial Orientation and Organizational Performance

Hypothesis 2 had two subdimensions of the TMT Decision making process being 2a. TMT Conflict and 2b. Decision Making speed. Decision making speed (SPEED) was discarded as a viable construct due to a low Cronbach Alpha of 0.456 that is lower than the

recommended Cronbach alpha of 0.70. As a result, hypothesis two only tests TMT Conflict as a moderating variable.

A moderated multiple regression analysis was conducted to predict the company's OP with EO as an input and decision-making conflict as a moderating variable to that relationship. The dependant variable was made binary while all other variables (independent and moderator variables) were made continuous. In addition, the independent variable (entrepreneurial orientation) and the moderator variable (top management team conflict) were mean centred. The objective of mean centring is to facilitate interpretation of regressing parameters especially when a value of 0 does not fall within the range of values on the independent variable.(Hayes & Rockwood, 2020)

The moderator variable was represented on three categories, low, medium and high. Then the relationship between the independent and dependent variables was tested on those three levels with +/- 1 selected as standard deviation probe in SPSS. The p-values was set to less than 0.10, thus only the conditional relationships with $p < 0.10$ will appear in the output.

To enable probing the independent and dependent variables across the areas of significance on each of the selected three categories, Johnson-Neyman output was enabled. The model is such that OP is Y, EO is X and the moderator variable, CONF is W shown below:

Model : 1
Y : OP
X : EO
W : CONF.

The sample size was 139 respondents with the outcome variable being OP.

Sample
Size: 139

OUTCOME VARIABLE:
OP

The model summary below shows that R-square value that gives the percentage of variance in the data explained by the model is between 39.40%.

Table 12 - Model Summary

R	R-sq	MSE	F	df1	df2	P
0.6277	0.3940	0.2982	29.2535	3.0000	135.0000	.0000

The interaction term Int_1 was not statistically significant (b= 0.564, s.e.=0.668, p=0.8438). Although the relationship between entrepreneurial orientation (EO) and organizational performance (OP) is statistically significant when controlled for the moderating variable, the conclusion is that top management team decision making conflict (CONF) does not moderate this relationship.

CONF is not a significant moderator of the effect of EO on OP.

Table 13 - Moderated Multiple Regression Coefficients

	coeff	se	t	p	LLCI	ULCI
constant	3.7971	.0464	81.8125	0.0000	3.7053	3.8889
EO	.4091	.0438	9.3338	.0000	.3224	.4957
CONF	.0090	.0682	.1315	.8956	-.1260	0.1439
Int_1 (EO x CONF)	0.0564	.0668	0.8438	.4003	-0.0758	.1886

Table 13 above shows that EO (entrepreneurial orientation) still has a statistically significant effect on OP (organizational performance) as reflected by the p-values less than 0.05, however but the CONF (top management decision making conflict) does not moderate their relationship.

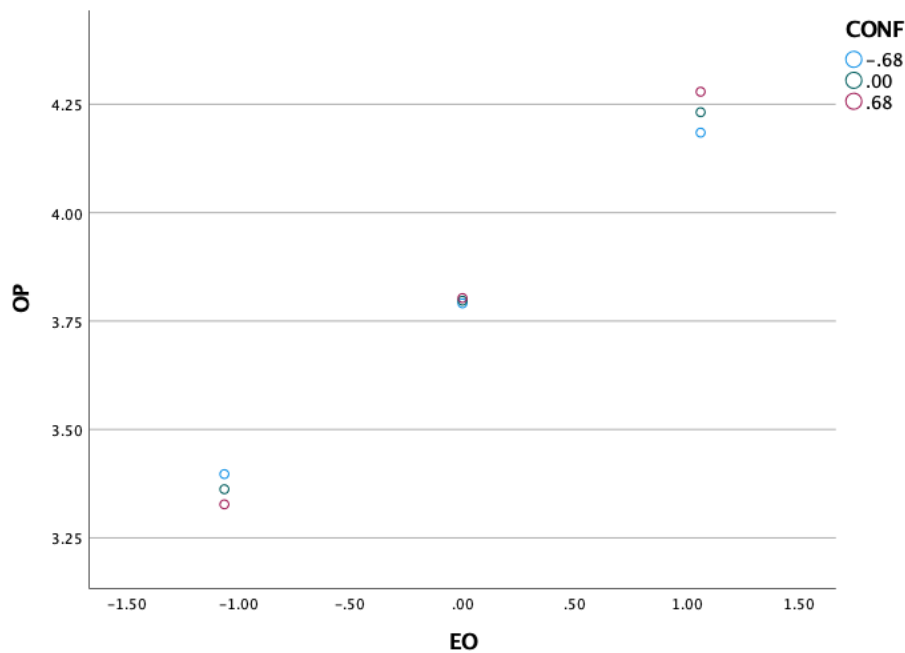


Figure 13 - Moderated Multiple Regression graph

Conclusion

A moderated multiple regression analysis was conducted to predict the company's organisational performance with entrepreneurial orientation an input and decision-making conflict as a moderating variable to that relationship. The interaction term Int_1 was not statistically significant ($b= 0.564$, $s.e.=0.668$, $p=0.8438$). Therefore, the relationship between entrepreneurial orientation and organisational performance remained statistically significant even when controlled for the moderating variable reflecting that top management team decision making conflict does not moderate this relationship.

Top Management Team Decision Making Conflict is therefore not a significant moderator of the effect of entrepreneurial orientation on organisational performance.

CHAPTER 6 – DISCUSSION OF RESULTS

6.1 Introduction

This chapter is a summation of the results of study and discusses data collection process, the statistical tests conducted which scope includes the descriptive statistics, statistical and hypothesis testing.

6.2 Data Collection

The study has a response rate of 82% and was closed with a valid sample of 139 respondents that in middle, senior and executive management. The acceptable response rate is 60% (Fincham, 2008). The respondent's selection was informed by (Covin & Wales, 2019) recommendations that respondents for entrepreneurial orientation research must be from senior cadres in the organisation. In addition, the moderating variable is anchored on the upper echelons theory and top management team decision making process, therefore, insights had to be gathered from members from senior levels within the organisations. The study was also exclusive to respondents based and working in Botswana. This was to ensure that respondents are from the same national culture and other cultural dynamics as identified by Hofstede that may impact interpersonal relations are minimized. (Hofstede, 2011)

6.3 Descriptive Statistics

The demographic attributes were split into five categories to aid in getting insights about the respondents and the organisations they represent. The categories were gender, tenure, organisational level, top management team size and organisational size.

The gender demographics represented an almost equal split between male and females. There were 50.40% females, 48.90% male and 0.70% opted not to say. The cross tabulation of gender demographics and ranking reflected that more females were in middle management whereas the senior and executive rank was dominated by males. This segregation was not surprising and aligned to many studies that found a gender imbalance at executive levels that was skewed to higher proportion of males. (Sidhu et al., 2009; Terjesen et al., 2016)

The ranking or organisational level demographics represented 64% of respondents that were in middle management and 36% in senior/executive management. The selection of middle to senior managers was to adhere to (Covin & Wales, 2019) recommendation that entrepreneurial orientation research requires informants that are from higher rankings in the organisation due to need for respondents with higher strategic awareness. Aligning to prior observations by (Hambrick & Mason, 1984; Michel & Hambrick, 1992) of managers having the ability to accurately report organisations entity. (Covin & Wales, 2019) recommendation was made particularly where respondents were from bigger companies and that was relevant for current study. Previous top management team research anchored in higher echelons theory focused on executive level respondents (Boone et al., 2019; Díaz-Fernández et al., 2020; She et al., 2020; Terjesen et al., 2016; Yi et al., 2022) however a decision was made to open study to both middle, senior and executive level respondents as those also have strategic foresight and would be impacted by outcomes of the top management decision making process.

The tenure demographics reflected length of service with current company reflected that majority of the respondents (40.30%) were in the 6 to 10 years category, followed by 27.30% in the 1 – 5 years category reflecting that the bulk of the respondents had been with the organisation long enough to have the strategic awareness needed for responding to study (Donbesuur et al., 2020) However longevity in an organisation had risk of creating familiarity bias as noted by (Vehovar et al., 2016). Therefore believe the large sample and inclusion of respondents with less than one year who accounted for 16% of respondents would improve integrity of the data. A cross tabulation of tenure demographics and ranking reflected that majority of middle managers were in the 6-10 and 1-5 years category. While majority of senior managers were in the 1-5 years and less than 1 year category.

The Size of the top management team demographic provided a evenly distributed respondent groups except top management team that had 6 to 8 members as an only outlier. Therefore, size of TMT team is unlikely to skew results significantly.

The organisation size demographic reflected that 67.60% of respondents were from large companies with revenues in excess of BWP 100 Mio, 14.4% from those with revenue less than BWP 20 Mio (small companies) and remaining 18% from middle companies. (Covin

& Wales, 2019) deemed the strict distinction between entrepreneurship (traditional entrepreneurial orientation) and entrepreneurship that happens in within companies (corporate entrepreneurship) as meaningless given rapid pace of entrepreneurial activity therefore the diverse organisation demographics should not restrict the entrepreneurial orientation research.

6.4 Statistical Tests

6.4.1 Validity and Reliability of Instruments

(Bonett & Wright, 2015)The reliability testing's objective is to ensure consistency of findings in collection and analysis. (Saunders & Lewis, 2017). Reliability was tested through Cronbach alpha and composite reliability. The Cronbach alpha must be less than 0.70 (Bonett & Wright, 2015) was attained for the following constructs risk, innovation, proactiveness, autonomy, cognitive conflict, affective conflict, and organisational performance. However, competition and decision-making speed failed to meet the 0.65 minimum and were discarded.

Composite reliability was used on testing the dependent and independent variables being Organisational performance and Entrepreneurial orientation and the two stayed within the acceptable range of 0.60 and 0.95 (Hair et al., 2019)

The Validity testing was on the main and latent constructs was conducted through confirmatory factor analysis (CFA) which assessed whether the findings aligned to the study (Saunders & Lewis, 2017). This was done through assessing both convergent and discriminant validity. The results of the Average Variance Extracted (AVE) was greater than 0.50 as per requirement. The results of the CR and AVE confirmed convergent validity meaning that scale items is closely related to other variables and measure the same constructs.

Discriminant validity was done through Fornell Larker's criterion that assessed inter-construct relationship and that came below the threshold of 0.85 (Ab Hamid et al., 2017)and the square root of each latent variable exceeded correlations with rest of constructs. This therefore reflected discriminate validity which measures the extent to which factors measuring a construct are distinct from each other. (Fornell & Larcker, 1981)

6.4.2 Correlations/Coefficients

The Pearson's correlation was done to test the strength of the linear relationship between the different variables. There was a moderately strong positive correlation between entrepreneurial orientation and organisational performance. The positive correlation aligns to findings by most scholars on a positive relationship. (Lee et al., 2019; Lumpkin & Dess, 1996; Rauch et al., 2009; Riviezzo et al., 2019; Wales et al., 2021)

An almost negligible negative correlation was noted between conflict and entrepreneurial orientation as well as conflict and organisational performance. The mild correlation does not align to studies by (C. K. de Dreu, 2006; Um & Oh, 2021) that found a negative correlation between conflict and organisational performance. However the mild correlation could be because other scholars found that the relationship between conflict and performance was not a linear but curvilinear.

6.4.3 Normality

The Q-Q plot was used and reflected that data was well distributed along the slope. There were marginal variances on either side of the slope that cancelled each other off. Only two variable were mild outliers but there no significant outliers. The Q-Q plot was preferred as its suitable for diverse distributions and sample size. (Mohd Razali & Bee Wah, 2011)

6.4.4 Model Fit

Model fit was established though indices like GFI, AGFI, RMSEA, NFI and CFI and they all remained within their acceptable ranges. (Butts & Michels, 2006; Dunham et al., 1994; Steiger, 2007b) This confirmed that the measurement tool was appropriate for the study and measured the constructs it was intended to (Browne & Cudeck, 1992)

6.5 Hypothesis Testing

6.5.1 H1 – There is a relationship between Entrepreneurial Orientation and Organisational Performance

The first hypothesis of the study was that there is a relationship between Entrepreneurial orientation and Organisational performance as was proven by prior studies by (Donbesuur et al., 2020; Lumpkin & Dess, 1996, 2001; McGee & Peterson, 2019; Vaitoonkiat & Charoensukmongkol, 2020; Wales et al., 2021). The model adopted was testing entrepreneurial orientation along the four dimensions being risk taking, innovativeness, proactivity and autonomy. These dimensions were found to contribute to EO by (Pérez-Luño et al., 2011). Organisational performance was tested on ten dimensions that assess both financial and non financial performance (Wiklund & Shepherd, 2003)

Multiple linear regression analysis was deployed in testing the relationship and results of the study reflect that there is a positive and direct relationship between Entrepreneurial Orientation and Organisational performance . The regression equation that shows the relationship between EO and OP is

$$OP = 1.724 + 0.625 * EO$$

This shows that a one unit increase in EO results in a 0.625 increase in OP. The two constructs have a directly proportional relationship. Therefore EO influences/affects OP. Further the extent of the variance between the two was further explained by the R2 that measures the variance in the dependant variable because of a move in the independent variable. EO was the independent variable whereas OP was the dependant variable. The R2 of 0.386 highlighted that 38.6% of the dependant variable (OP)'s variance was a consequence of a move in EO. The findings of the study support finding by (Covin & Wales, 2019; McGee & Peterson, 2019; Rauch et al., 2009) that there is a direct relationship between EO and OP although this is contingent.

6.5.2 H2 - Top Management Decision Making Conflict moderates the relationship between Entrepreneurial orientation and Organisational Performance

The second hypothesis initially had two sub-dimensions, top management decision making speed and Conflict. However, speed failed the reliability test due to a low Cronbach alpha. Therefore, the construct was discarded and one moderator analysed being the top management conflict. The study employed multiple linear regression with

moderation in assessing the moderating effect of TMT Conflict on the relationship between entrepreneurial orientation and organizational performance.

Entrepreneurial orientation and organizational performance had a statistically significant relationship as shown by the p-value which is less 0.05. However, the interaction variable was not statistically significant which resulted the conclusion that top management conflict does not have a moderating effect on the relationship between EO and OP.

This finding does not align with the previous studies that found that conflict had a negative effect on strategic decision making and was not responsive the empowering leadership as an intervention (Yi et al., 2022)), or that it led to team members not being willing to work together and hurting team dynamics (C. K. W. de Dreu & Weingart, 2003; Kotlyar & Karakowsky, 2007) and ultimately affecting organisational performance (Eisenhardt, 2013)

The findings align to studies that highlighted the complexity of the conflict as a construct where previous studies indicated moderate benefits of conflict that dissipated with intensity (C. K. W. de Dreu & Weingart, 2003). A study by (Todorova et al., 2014)acknowledged the mixed results of task conflict in team settings and attributed it to the manner in which conflict was expressed but not its existence. (O'Neill & McLarnon, 2018) highlighted that teams can function and co-exist with different forms of conflict if they deploy constructive controversy training.

The mixed results on the effect of different conflict types could also play a part. Some prior research had positioned task conflict as the positive type of conflict that fostered creativity and learning, whereas affective was negative. However, within the task conflict domain, the results were mixed where (C. K. de Dreu, 2006)highlighted intensity of the conflict, that is too little or too high as detrimental to teams. (O'Neill et al., 2013) highlighted that task conflict was only detrimental if it happened in existence of relational or process conflict. Although (C. K. W. de Dreu & Weingart, 2003) felt that all conflict was bad.

Therefore the finding that TMT Conflict does not moderate the relationship between EO and OP could be attributed to (Todorova et al., 2014) findings on the material variable is on how conflict is expressed as opposed to its existence. Another possible reason could be the other complexity of dynamics within the TMT as explained by the UET ((Hambrick & Mason, 1984; Neely et al., 2020) where the many other attributes that affect

performance would mitigate effects of conflict. A further dynamic could be impact of national culture and executives' approach to tackling conflict. (Elsayed-Ekjiouly & Buda, 1996) found that middle eastern executives adopted an integrating and avoidance strategy in handling conflict whereas American executives dominating and compromising style. Therefore, perception of conflict might be influenced by the prevalent national culture.(Hofstede, 2011)

6.6 Summary of Hypothesis testing

The study had two hypothesis for testing and the outcome of the tests resulted in a rejection of the null hypothesis 1 (H1) because there is evidence that entrepreneurial orientation affects organisational performance and accepted the null hypothesis 2 (H2) because decision making speed was not found to moderate the relationship between entrepreneurial orientation and organisational performance.

6.7 Conclusion

Chapter 6 presented the summary of results of the data collection process with key focus on outcome of the statistical tests that were done and the hypothesis testing. The tools and dimensions were taken through a series of statistical tests to confirm validity and reliability, identify outliers and the model fit. The series of tests were successful and culminated in top management decision making speed being discarded as a construct due to a low Cronbach alpha. The study concluded that entrepreneurial orientation affects organizational performance and that the top management team decision making process (conflict) does not moderate the relationship between entrepreneurial orientation and organizational performance. Below is graphical representation of outcome of hypothesis testing.

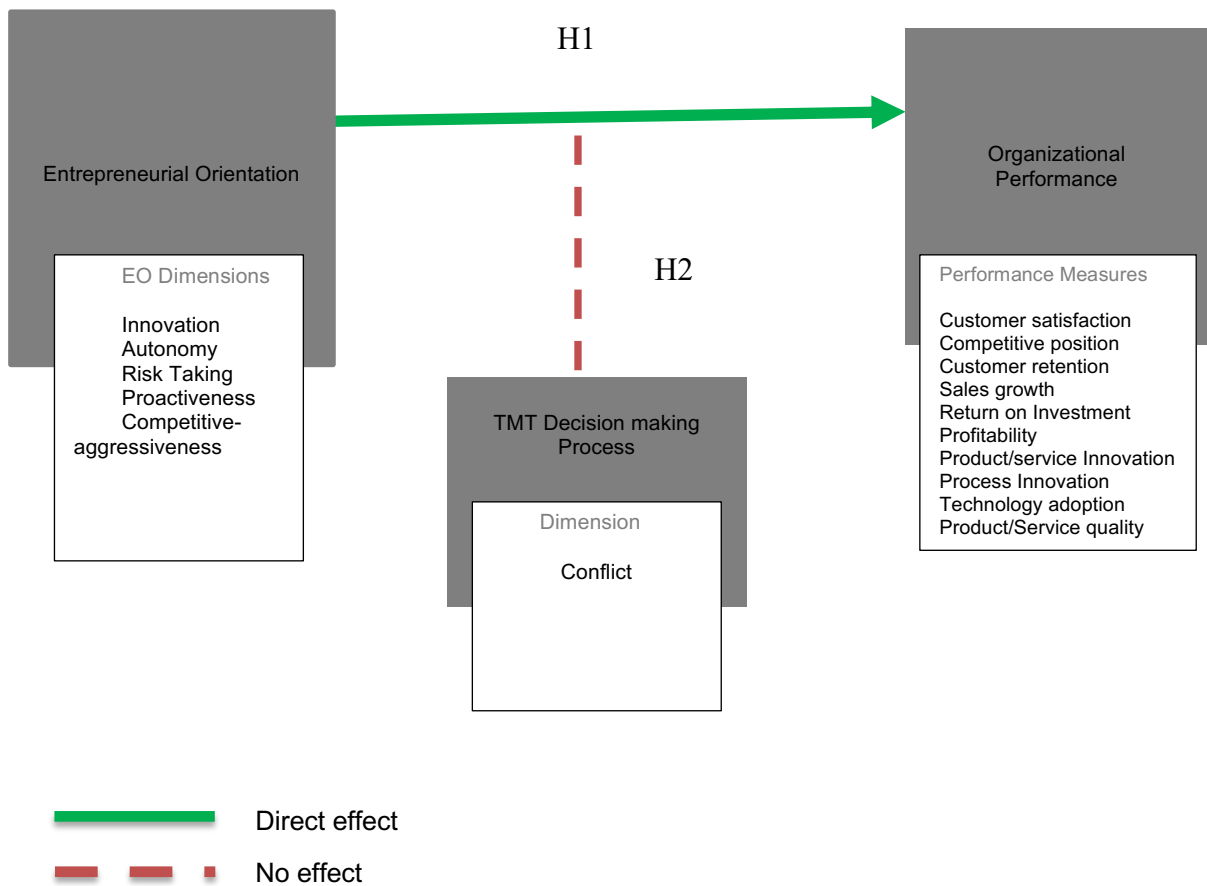


Figure 14 - Summary of results from hypothesis testing

CHAPTER 7 – CONCLUSIONS AND RECOMMENDATIONS

7.1 Introduction

This chapter provides a summary of the research, key conclusions and implications for business, management, and theory. The limitations of the research are also unpacked, and recommendations provided for future research.

7.2 Principal Conclusions

There are two material conclusions of the study; first, the positive relationship between entrepreneurial orientation and organisational performance was confirmed. Second, the moderating effect of top management decision making process was not validated.

The first hypothesis was testing the relationship between entrepreneurial orientation and organisational performance and found this to be positive as evidenced by a moderately strong correlation. This aligned to initial work by (Covin & Wales, 2019; Lumpkin & Dess, 1996, 2001) and subsequent work by (McGee & Peterson, 2019; Rauch et al., 2009). The results from (Vaitoonkiat & Charoensukmongkol, 2020) also supported this positive relationship, mainly that organisations with high level of entrepreneurial orientation performed better than with lower levels of entrepreneurial orientation in various contexts.

The second hypothesis of the study tested the moderation effect of top management decision making conflict on the relationship between entrepreneurial orientation and organisational performance. The preliminary correlation analysis reflected a mild correlation between conflict and entrepreneurial orientation as well as a similar mild correlation between conflict and organisational performance. However, the interaction effect of top management conflict on entrepreneurial orientation and organisational performance was found not to be statistically significant. This does not align with (Eisenhardt, 2013) findings on the effect of top management decision making process and conflict on organisational performance. It also contradicted findings by (C. K. W. de Dreu & Weingart, 2003; Hurt & Abebe, 2015; Medina et al., 2019; Todorova et al., 2014; Um & Oh, 2021) that task conflict was functional and beneficial to decision making and performance.

However the results provide context on what (Um & Oh, 2021) referred to in their findings when they flagged the complexity of conflict. Their findings were that the effect of conflict on performance depended on type of conflict that was at play. There are other findings that pointed to the complexity of conflict for example (Hurt & Abebe, 2015) found that it's the intensity of the conflict as opposed to its presence that was detrimental or that moderate levels of conflict were beneficial whereas higher was detrimental (C. K. de Dreu, 2006) or that the issue was the manner in which the conflict was expressed (Todorova et al., 2014) where intense expression of conflict can be detrimental to the team.

The failure to establish a statistically significant moderator effect of top management team conflict on the relationship between entrepreneurial orientation and organisational performance came as a surprise. However, that can possibly be attributed (Todorova et al., 2014) findings that it is not the existence of conflict that affects teams but the way the conflict is expressed. Another possible reason could be dynamics within the TMT as explained by the upper echelons theory (Carpenter et al., 2004; Hambrick, 1987; Hambrick & Mason, 1984) which posits that the upper echelons characteristics which include the psychological and observable traits of the TMT where factors such diversity of team members (Boone et al., 2019) impact of the board on the TMT (Ferguson et al., 2019), influence of CEO (She et al., 2020; Yi et al., 2022), and TMT structure (Eisenhardt, 2013) that could mitigate any effects of conflict on performance .

(Todorova et al., 2014)'s finding that it's not the presence of conflict that was detrimental but the way conflict was expressed brings in another dynamic that could have contributed to the study. The national cultural context as explained by Hofstede (Hofstede, 2011) and way different cultures handle conflict. (Tjosvold & Sun, 2002) found that executives in the middle east used an integrating and avoidance strategy whereas American executives used a dominating and compromising style. Therefore, the lack of a moderation by conflict could be because executives deploy a conflict avoidance strategy which may lessen its impact. found that conflict avoidance could be beneficial and re-affirm an effective strategy. Or that individual cultural orientation will impact the conflict management approach (Caputo et al., 2018)

7.3 Business and Managerial Implications

The resource-based view is anchored on firms leveraging their resources to improve competitiveness.(Alvarez & Busenitz, 2001; Barney et al., 2001; Gerhart & Feng, 2021; Wemerfelt, 1984) Businesses are now confronted with a more complex environment,(‘Isabelle et al., 2020) highlighted the following as additional complexities in the current environment; increased competitor’s innovation, dynamic regulatory environment , obsolescence due to digitization and continued globalization. As complexity is the business environment mounts due to the post pandemic effects and the possibility of stagflation globally, the need for businesses to leverage their resources for sustained competitive advantage is important. Entrepreneurial orientation as an internal resource can be leveraged to influence company outcomes. As found by (Vaitoonkiat & Charoensukmongkol, 2020) firms with higher entrepreneurial orientation had high organisational performance. The sub dimensions of entrepreneurial orientation like autonomy and innovativeness have been found to have positive effects on performance and impacting other entrepreneurial orientation sub dimensions (Dai et al., 2014; Pérez-Luño et al., 2011). Therefore, managers can actively work on promoting entrepreneurial orientation and harnessing the specific attributes that can impact performance and facilitate other sub dimensions.

The statistically insignificant moderating effect of top management decision making process on the relationship between entrepreneurial orientation and organisational performance reflected a deviation from prior research but reflects the complexity of conflict. Therefore, managers should be cognisant of other findings that point to a curvilinear as opposed to linear relationship between conflict and performance (C. K. de Dreu, 2006) or those that suggested that the way conflict was expressed was detrimental to team dynamics (Todorova et al., 2014) and ensure that they keep a close pulse on management of conflict. Other scholars have highlighted that team can co-exist with conflict provided they have the requisite controversy training skills. Therefore, managers must not just consider the type, intensity and expression of conflict but must ensure teams are equipped with the skills to manage conflict.

7.4 Theoretical Implications

The findings of this study help to advance the resource-based theory (Wemerfelt, 1984) in terms of role of entrepreneurial orientation as one of the strategic levers that an organisation can deploy to gain competitive advantage. The findings validate (Wales et al., 2021) view that resource-based theory is part of the structural components of entrepreneurial orientation and its impact on organisational performance.

The dynamics of the top management team as captured by upper echelons theory remain an area that requires significant research. Some studies found top management decision making process to have an adverse impact on the relationship between entrepreneurial orientation and organizational performance (C. K. W. de Dreu & Weingart, 2003; Eisenhardt, 2013; Ferguson et al., 2019) but this study did not establish that. This therefore highlights how the contextual factors within the top management team require more research for example the impact of national culture (Hofstede, 2011) on conflict. The national culture could have played a moderating impact on the conflict. It is key to consider incorporating frameworks like Hofstede into upper echelons theory studies

7.5 Limitations

Validity is concerned with whether the findings are truly aligned to the study. One of the factors that threaten validity is subject selection. (Saunders & Lewis, 2017). Due to the lack of a sample frame in this study and the use of a purposive sampling method, a limitation of this study is the risk of selection of respondents that may not be representative of the population, therefore, affecting the ability to generalize the data.

The time horizon of the study is cross-sectional which gives a snapshot of the study. A longitudinal study has the benefit of showing development and changes over time which would have helped understand the relationship between the TMT decision-making process, EO, and OP.

The study was reviewing three constructs: entrepreneurial orientation, organizational performance and top management team decision making process. The study used middle, senior and executive management respondents who are deemed to have strategic foresight and appropriate particularly for entrepreneurial orientation research.(Covin &

Wales, 2019). However, since most upper echelons research used executive management respondents (Boone et al., 2019; Díaz-Fernández et al., 2020; She et al., 2020; Yi et al., 2022) the inclusion of middle managers in our study may have compromised some insights.

7.6 Recommendations for future research

The inability of the study to validate the moderating effect of top management conflict on the relationship between entrepreneurial orientation and organisational performance points to the need to research the upper echelons theory more (Hambrick & Mason, 1984) and understand the various dimensions that could impact the dynamics within the top management team. Given study by (Lumpkin & Dess, 2001) that highlighted the various contingent variables on the relationship between EO and OP, it could be worth investigating the nature of the impact of the TMT decision making process on the EO and OP relationship whether it exists as an antecedent,

The previous studies on entrepreneurial orientation has deployed similar tools and methodology in study such as multi variate analysis. The findings of the study point to an opportunity to leverage other forms of analysis to potentially garner new research insights. For example researchers could leverage fuzzy set qualitative comparative analysis (FsQCA) (Douglas et al., 2020; Kraus et al., 2018; “Ragin, 2009)to understand how the different combinations of conflict within top management decision making process could moderate the relationship between entrepreneurial orientation and organisational performance. Although the methodology is still in infancy, might be appropriate as it would consider that an outcome can be caused by a combination of various factors and incorporates this complexity. (Douglas et al., 2020; “Ragin, 2009)This is because research on the different conflict types have provided findings that suggest impact of conflict could emanate for various compinantios and therefore impact performance in diverse ways. FsQCA was helpful in showing how the different dimensions of entrepreneurial orientation impacted various performance measures relating to innovation (Kraus et al., 2018). Therefore, the same methodology can be deployed in investigating impact of different components of the top management decision making process.

There is also a need to investigate national culture as an important contextual variable within the top management team that can moderate effects of conflict. This will help

advance upper echelons theory through a incorporation of some of Hofstede's dimensions.

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APPENDICES

Appendix 1 – Questionnaire

The Moderating Role of the Top Management Decision Making process on the relationship between Entrepreneurial Orientation and Organizational Performance

Dear Participant

I am currently conducting research on the relationship between top management decision making process, entrepreneurial orientation and organisational performance and would highly appreciate your participation. This research is in partial fulfilment of the master's in business administration (MBA) requirements for Gordon Institute of Business Science, University of Pretoria.

Your participation in the survey is voluntary and you are allowed to withdraw at any time without adverse consequences/penalty. Further, your participation is anonymous and only aggregated data will be presented. The survey is expected to take an average of 15 minutes.

By completing the survey, you affirm having done so voluntarily. Should you have any questions, kindly contact myself or my research supervisor at the contact details outlined below.

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Section 1 – General Questions

Gender	Male Female Prefer not to say
Classification of Role	Middle Management Senior/ Executive Management Other – than middle/senior and exec management
Number of years in Top Management	Less than 1 year 1-5 years 6-10 years 11-14 years More than 15 years
Size of Top Management team	Less than 5 members 6 to 8 members 9 to 10 members 11 to 15 members 16 or more members
Company Revenue Range	Less than 20m 20m to 49 m 50 to 99 m Above 100m

Section 2 – Entrepreneurial Orientation

This section will use the 5-point Likert Scale to assess your view on the dimensions of entrepreneurial orientation in your company

Seven Point Likert Scale

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

Risk-taking (RISK)	
	The term 'risk taker' is considered a positive attribute for people in our business
	People in our business are encouraged to take calculated risks with new ideas

	Our business emphasizes both exploration and experimentation for opportunities
Innovativeness (INNOV)	
	We actively introduce improvements and innovations in our business
	Our business is creative in its methods of operation
	Our business seeks out new ways to do things
Proactiveness (PROACTIVE)	
	We always try to take the initiative in every situation (e.g., against competitors, in projects and when working with others)
	We excel at identifying opportunities
	We initiate actions to which other organizations respond
Competitive aggressiveness (COMPAGGR)	
	Our business is intensely competitive
	In general, our business takes a bold or aggressive approach when competing
	We try to undo and out-manuever the competition as best as we can
Autonomy (AUTONOMY)	
	Employees are permitted to act and think without interference
	Employees perform jobs that allow them to make and instigate changes in the way they perform their work tasks
	Employees are given freedom and independence to decide on their own how to go about doing their work
	Employees are given freedom to communicate without interference
	Employees are given authority and responsibility to act alone if they think it to be in the best interests of the business
	Employees have access to all vital information

Section 3 – Organisational Performance

This section will optimise a 5-point Likert Scale to assess your judgement of your company performance in relation to the market/competitors. The scale ranges from "Strongly disagree" to "Strongly agree"

Five Point Likert Scale

Strongly disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
1	2	3	4	5

My company has good customer satisfaction reputation
My company has a good competitive position in the market
My company is good at retaining customers
My company has a good sales growth
My company has a good return on investment
My company's profitability is satisfactory
My company's Product/service innovation is satisfactory
My company's Process innovation is satisfactory
My company's rate of Adoption of new technology is satisfactory
My company's Product or service are of satisfactory quality

Section 4 – Top Management Team Decision Making Conflict

This section of the questionnaire uses a 5- point Likert Scale and require you to think about the key strategic decisions made in your firm and your experience in terms of the conflict during management team decision-making process. The 5 point Likert Scale ranges from "None" to "A great deal"

None	Sometimes	Often	Almost always	A great deal
1	2	3	4	5

Cognitive and Affective Conflict	
Affective Conflict	
	There tends to be a lot of anger amongst the leadership team during decision making
	How much personal friction is experienced in the group during strategic decision making
	There are personality clashes evident during strategic decision making
	How much tension is there in the group during strategic decision making
Cognitive Conflict	
	How much debate over different ideas/options is there during decision making

	How many differences about the content of the decision did the group have to work through
	How many differences of opinion are there about strategic decisions

Section 5 – Top Management Team Decision Making Speed

This section of the questionnaire uses a 7- point Likert Scale and require you to think about the key strategic decisions made in your firm and your experience in terms of the management team decision-making speed. The 7 point Likert Scale ranges from "Very strongly disagree" to "Very strongly agree"

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

Strategic Decision Making Speed - Adomako	
	We prefer and tend to take our time when making decisions (r)
	We generally believe in making quick strategic decisions
	We prioritize speed when planning or thinking about strategies

Appendix 2 – Code Book

Survey Data Questions

Question	Code
The term 'risk taker' is considered a positive attribute for people in our business	RISK1
People in our business are encouraged to take calculated risks with new ideas	RISK2
Our business emphasizes both exploration and experimentation for opportunities	RISK3
We actively introduce improvements and innovations in our business	INNOV1
Our business is creative in its methods of operation	INNOV2
Our business seeks out new ways to do things	INNOV3
We always try to take the initiative in every situation (e.g., against competitors, in projects and when working with others)	PROA1
We excel at identifying opportunities	PROA2
We initiate actions to which other organizations respond	PROA3
Our business is intensely competitive	COMP1
In general, our business takes a bold or aggressive approach when competing	COMP2
We try to undo and out-maneuver the competition as best as we can	COMP3
Employees are permitted to act and think without interference	AUTO1
Employees perform jobs that allow them to make and instigate changes in the way they perform their work tasks	AUTO2
Employees are given freedom and independence to decide on their own how to go about doing their work	AUTO3
Employees are given freedom to communicate without interference	AUTO4
Employees are given authority and responsibility to act alone if they think it to be in the best interests of the business	AUTO5
Employees have access to all vital information	AUTO6
My company has good customer satisfaction reputation	OP1
My company has a good competitive position in the market	OP2
My company is good at retaining customers	OP3
My company has a good sales growth	OP4
My company has a good return on investment	OP5
My company's profitability is satisfactory	OP6
My company's Product/service innovation is satisfactory	OP7
My company's Process innovation is satisfactory	OP8
My company's rate of Adoption of new technology is satisfactory	OP9
My company's Product or service are of satisfactory quality	OP10
There tends to be a lot of anger amongst the leadership team during decision making	AFFCON1
How much personal friction is experienced in the group during strategic decision making	AFFCON2
There are personality clashes evident during strategic decision making	AFFCON3
How much tension is there in the group during strategic decision making	AFFCON4
How much debate over different ideas/options is there during decision making	COGCON1
How many differences about the content of the decision did the group have to work through	COGCON2
How many differences of opinion are there about strategic decisions	COGCON3
We prefer and tend to take our time when making decisions (r)	SPEED1
We generally believe in making quick strategic decisions	SPEED2
We prioritize speed when planning or thinking about strategies	SPEED3

Qualitative data Coded to Numeric Data



Qualitative data	Code	Response in raw data
<i>Gender</i>	1	Female
	2	Male
	3	Prefer not to say
<i>Years_in_Company</i>	1	Less than 1 year
	2	1 - 5 years
	3	6 - 10 years
	4	11 - 14 years
	5	More than 15 years
<i>Role</i>	2	Middle Management
	3	Senior/Executive
<i>Management_Team_Size</i>	1	Less than 5 members
	2	6 - 8 members
	3	9 - 10 members
	4	11 - 15 members
	5	16 or more members
<i>Company_Revenue_BWP</i>	1	Less than 20m
	2	20m to 49m
	3	50m to 99m
	4	Above 99m

Likert Scale Items coded to Numeric Data

Five Point Likert Scale	
Likert Scale Scores	Code
Strongly Disagree	1
Disagree	2
Neutral	3
Agree	4
Strongly Agree	5
Seven Point Likert Scale	
Likert Scale Scores	Code
Very Strongly Disagree	1
Strongly Disagree	2
Disagree	3
Neutral	4
Agree	5
Strongly Agree	6
Very Strongly Agree	7

Appendix 3 – Ethical Clearance

Ethical Clearance Approved – 20802928@mygibs.co.za (All Mail)

Masters Research  Inbox - 20...@mygibs.co.za 22 August 2022 at 14:47 

Ethical Clearance Approved [Details](#)

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**Ethical Clearance
Approved**

Dear Harriet Mlalazi,

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

[Ethical Clearance Form](#)

Kind Regards

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

Masters Research

Gordon Institute of Business Science, University of Pretoria

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Appendix 4 – Consistency Matrix

TITLE: The Moderating role of top management decision making process on relationship between entrepreneurial orientation and organizational performance

HYPOTHESIS	LITERATURE REVIEW	DATA COLLECTION TOOL	ANALYSIS
Entrepreneurial Orientation has an impact on organizational performance	(Chen et al., 2020; Lumpkin & Dess, 1996, 2001; McGee & Peterson, 2019; Rauch et al., 2009; Rezaei & Ortt, 2018; Wales et al., 2021)	Section 2 and Section 3 Survey Questionnaire	Multiple regression analysis
Decision Making conflict moderates the relationship between entrepreneurial orientation and organizational performance	(C. K. W. de Dreu & Weingart, 2003; Eisenhardt, 2013; Kotlyar & Karakowsky, 2007; Todorova et al., 2014; Yi et al., 2022)	Section 4 Survey Questionnaire	Moderated multiple regression analysis